

PRICE ONE SHILLING.

THE
ILLUSTRATED
LONDON ALMANACK
FOR
1865



CONTAINING

ASTRONOMICAL DIAGRAMS OF REMARKABLE PHENOMENA, PRINTED IN TINTS.

UNDER THE SUPERINTENDENCE OF JAMES BREEN, F.R.A.S. ;

FERNS AND BUTTERFLIES OF THE MONTHS,

PRINTED IN COLOURS, BY LEIGHTON BROTHERS, WITH DESCRIPTIVE LETTERPRESS BY MRS. LANKESTER ;

TWELVE FINE-ART ENGRAVINGS ; TWELVE ORIGINAL DESIGNS HEADING THE CALENDAR ;

AND A VARIETY OF USEFUL INFORMATION.

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JANUARY.



SKATING.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.		DURATION OF MOONLIGHT.								HIGH WATER AT				Day of Year.												
			Rises.	Souths after Noon.	Sets.	Rises. Morn.	Sets Aftern.	Before Sunrise.				Moon's Age.	After Sunset.				London Bridge.		Liverpool Dock.													
								O'Clock.					O'Clock.				Morn.	Aftern.	Morn.		Aftern.											
			H.	M.	M.	S.	H.	M.	H.	M.	H.	M.	4	5	6	7	8	4	5	6	7	8	H.	M.	H.	M.						
1	S	S. AFT. XMAS. <i>Circumc.</i>	8	8	4	0	4	0	9 52	9	3							4					4	15	4	37	1	15	1	36	1	
2	M	Calcutta captured, 1757	8	8	4	28	4	1	10 19	10	22							5					4	58	5	20	1	58	2	21	2	
3	Tu	Length of day 7h. 54m.	8	8	4	56	4	2	10 45	11	39							6					5	43	6	8	2	46	3	8	3	
4	W	Day breaks 6h. 2m.	8	8	5	23	4	3	11 14		Morn.							7					6	30	6	58	3	36	4	3	4	
5	Th	Edward the Confessor died, 1041	8	8	5	50	4	4	11 42	0	55							8					7	25	7	55	4	33	5	4	5	
6	F	<i>Epiphany</i>	8	7	6	16	4	6	Aftern.	2	11							9					8	26	9	3	5	41	6	18	6	
7	S	Twilight ends 6h. 11m.	8	7	6	42	4	7	0 49	3	23							10					9	40	10	17	6	55	7	34	7	
8	S	1ST S. AFT. EP. <i>Lucian</i>	8	6	7	84	8	1	33	4	30							11					10	56	11	33	8	11	8	44	8	
9	M	Calais taken, 1558	8	6	7	33	4	10	2 24	5	30							12					—	0	6	9	16	9	16	9	44	9
10	Tu	Land executed, 1645	8	5	7	57	4	11	3 21	6	22							13					0	38	1	6	10	10	10	33	10	
11	W	Hilary Term begins	8	5	8	21	4	12	4 22	7	8							14					1	32	1	55	10	54	11	14	11	
12	Th	Mean daily temperature, 36 deg.	8	4	8	44	4	14	5 24	7	45							15					2	16	2	36	11	36	11	54	12	
13	F	Cambridge Lent Term begins	8	3	9	64	15	6	31	8	15							16					2	58	3	16	—	0	13	13		
14	S	Oxford Lent Term begins	8	2	9	28	4	17	7 36	8	41							17					3	35	3	51	0	29	0	46	14	
15	S	2ND SUND. AFT. EPIPH.	8	2	9	49	4	18	8 40	9	5							18					4	8	4	24	1	2	1	19	15	
16	M	Battle of Corunna, 1809	8	1	10	104	20	9	43	9	28							19					4	41	4	57	1	35	1	53	16	
17	Tu	King Charles I. tried, 1649	8	0	10	304	22	10	46	9	49							20					5	15	5	31	2	9	2	26	17	
18	W	<i>Prisca</i>	7	59	10	494	23	11	49	10	10							21					5	48	6	6	2	44	3	1	18	
19	Th	First English Parliament, 1265	7	58	11	74	25	Morn.	10	33								22					6	23	6	43	3	21	3	40	19	
20	F	<i>Fabian</i>	7	57	11	254	27	0	54	10	59							23					7	2	7	24	4	2	4	26	20	
21	S	<i>Agnes</i>	7	56	11	424	28	1	57	11	29							24					7	48	8	19	4	57	5	34	21	
22	S	3RD S. AFT. EP. <i>Vincent</i>	7	54	11	584	30	3	1	Aftern.								25					8	56	9	34	6	12	6	49	22	
23	M	Royal Exchange opened, 1571	7	53	12	134	32	4	4	0	51							26					10	11	10	48	7	26	8	5	23	
24	Tu	Day breaks 5h. 51m.	7	52	12	284	33	5	1	1	43							27					11	27	—	8	40	9	10	24		
25	W	<i>Conversion of St. Paul</i>	7	51	12	424	35	5	53	2	48							28					0	2	0	32	9	37	10	2	25	
26	Th	Twilight ends 6h. 36m.	7	49	12	554	37	6	40	4	0							29					0	59	1	24	10	25	10	48	26	
27	F	Greece declared Independent, 1822	7	48	13	74	39	7	18	5	18							30					1	47	2	10	11	11	11	33	27	
28	S	Wellington College opened, 1859	7	47	13	184	40	7	50	6	40							1					2	33	2	55	11	56	—	—	28	
29	S	4TH SUND. AFT. EPIPH.	7	45	13	294	42	8	22	8	3							2					3	18	3	39	0	17	0	37	29	
30	M	Charles I. beheaded, 1649	7	44	13	394	44	8	50	9	24							3					3	59	4	21	0	59	1	21	30	
31	Tu	Hilary Term ends	7	42	13	484	46	9	18	10	42							4					4	43	5	5	1	43	2	5	31	



GENERAL LEE, COMMANDER-IN-CHIEF OF THE ARMY OF THE CONFEDERATE STATES OF AMERICA.
FROM "THE ILLUSTRATED LONDON NEWS."

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

THE QUEEN AND ROYAL FAMILY.

THE QUEEN.—VICTORIA, of the United Kingdom of Great Britain and Ireland, &c., Queen, Defender of the Faith. Her Majesty was born at Kensington Palace, May 24, 1819; succeeded to the throne June 20, 1837, on the death of her uncle King William IV.; was crowned June 28, 1838; and married, Feb. 10, 1840, to his Royal Highness, Prince Albert. Her Majesty is the only child of his late Royal Highness Edward Duke of Kent, son of King George III. The Children of her Majesty are:—

Her Royal Highness Victoria-Adelaide-Mary-Louisa, PRINCESS ROYAL OF ENGLAND AND PRUSSIA, born Nov. 21, 1840, and married to his Royal Highness William of Prussia, Jan. 25, 1858, and has issue two sons and a daughter.

His Royal Highness Albert-Edward, PRINCE OF WALES, born Nov. 9, 1841; married, March 10, 1863, Alexandra of Denmark (Princess of Wales), born Dec. 1, 1844, and has issue a son, Prince Albert Victor, born Jan. 8, 1864.

Her Royal Highness Alice-Maud-Mary, born April 25, 1843; married to H.R.H. Prince Frederick Louis of Hesse, July 1, 1862, and has issue a daughter, Princess Victoria.

His Royal Highness Alfred-Ernest-Albert, born Aug. 6, 1844.

Her Royal Highness Helena-Augusta-Victoria, born May 25, 1846.

Her Royal Highness Louisa-Carolina-Alberta, born March 18, 1848.

His Royal Highness Arthur-William-Patrick-Albert, born May 1, 1850.

His Royal Highness Leopold-George-Duncan-Albert, born April 7, 1853.

Her Royal Highness Beatrice-Mary-Victoria-Fedore born April 14, 1857.

George-Frederick-William-Charles, K.G., DUKE OF CAMBRIDGE, cousin to her Majesty, born March 26, 1819.

Angusta-Wilhelmina-Louisa, DUCHESS OF CAMBRIDGE, niece of the Landgrave of Hesse and aunt to her Majesty, born July 25, 1795; married, in 1819, the late Duke of Cambridge.

George-Frederick-Alexander-Charles-Ernest-Augustus, K.G., KING OF HANOVER, cousin to her Majesty, born May 27, 1819, married Princess Frederica of Mecklenburg-Strelitz, and has issue a son and two daughters.

Angusta-Caroline-Charlotte-Elizabeth-Mary-Sophia-Louisa, daughter of the late Duke of Cambridge and cousin to her Majesty, born July 19, 1822, married, June 28, 1843, to Frederick, Grand Duke of Mecklenburg-Strelitz, and has a son.

Mary-Adelaide-Wilhelmina-Elizabeth, daughter of the late Duke of Cambridge, and cousin to her Majesty, born Nov. 27, 1833.

HER MAJESTY'S HOUSEHOLD.

LORD STEWARD'S DEPARTMENT.

Lord Steward	Earl of St. Germans, G.C.B.
Treasurer	Right Hon. Viscount Bury.
Comptroller	Right Hon. Lord Proby.
Master of the Household	Sir T. M. Biddulph, K.C.B.
Secretary of Board of Green Cloth	E. M. Browell, Esq.
Paymaster of the Household	W. Hampshire, Esq.

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Lord Chamberlain	Viscount Sydney, G.C.B.
Vice-Chamberlain	Viscount Castlereagh.
Comptroller	Hon. S. C. B. Ponsonby.
Chief Clerk	T. C. March, Esq.
Keeper of the Privy Purse	Col. Hon. Sir C. B. Phipps, K.C.B.
Secretary	H. T. Harrison, Esq.
Librarians	(B. B. Woodward, Esq., and J. M. Perry, Esq.)

Captain of the Yeomen of the Guard	Earl Ducie.
Captain of the Gentlemen-at-Arms	Lord Foley.
Master of the Ceremonies	Major-Gen. Hon. Sir E. Cust, G.C.H.
Lord High Almoner	Bishop of Oxford.
Dean of Chapel Royal	Bishop of London.
Sub-Dean	Rev. F. Garden.
Clerk of the Closet	Baron of Chester.
Resident Chaplain	Dean of Windsor.
Mistress of the Robes	Duchess of Wellington.
Groom	Major-Gen. F. H. Seymour.

MASTER OF THE HORSE'S DEPARTMENT.

Master of the Horse	Marquess of Ailesbury
Clerk Marshal	Lord Alfred Paget.
Crown Equerry and Secretary	Lieut.-Col. G. C. Mande, C.B.
Master of the Buckhounds	Earl of Bessborough.

BRITISH AND FOREIGN AMBASSADORS.

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Argent. Conf.	Edward Thornton, Esq.	Spain	Don Juan B. Alberdi
Austria	Lord Bloomfield, G.C.B.	Portugal	Count R. d'Apponyi
Bavaria	Lord A. W. F. S. Loftus	Prussia	Baron de Cetto
Belgium	Lord Howard de Walden, G.C.B.	Russia	M. Van de Weyer
Central America, G. B. Mathew, Esq.		Saxony	Senor Carlos Gutierrez
Chili	W. T. Thompson, Esq.	Sweden	Don Manuel Carvallo
China	Hon. Sir F. W. A. Bruce, K.C.B.	Switzerland	
Denmark	Ang. Berkeley Paget, Esq.	Turkey	
Equator	George Fagan, Esq.		
France	Earl Cowley, G.C.B.		
German Conf.	Sir Alexander Malet, Bart.		
Greece	Hon. P. C. Scarlett, C.B.		
Hanover	Sir H. F. Howard		
Hanse Towns	John Ward, Esq.		
Italy	Hon. H. G. Elliot		
Japan	Sir Rutherford Alcock, K.C.B.		
Mexico	Sir Chas. L. Wyle, K.C.B.		
Netherlands	Sir John Milbanke, Bart.		
New Granada	Philip Griffith, Esq.		
Persia	Charles Alison, Esq., K.C.B.		
Peru	Hon. W. S. Jerningham		
Portugal	Sir A. C. Magenis, K.C.B.		
Prussia	Sir A. Buchanan, K.C.B.		
Russia	Lord Napier		
Saxony	Hon. Chas. Ang. Murray, C.B.		
Spain	Sir J. F. Crampston, Bt. K.C.B.		
Sweden	Hon. G. S. Jerningham		
Switzerland	Adm. Hon. E. A. J. Harris, R.N.		
Turkey	Sir H. Lytton Bulwer, G.C.B.		

PRINCE OF WALES'S HOUSEHOLD.

Groom of the Stole	Earl Spencer.
Keeper of the Privy Seal	Sir Wm. Dunbar, Bart.
Comptroller	Major-Gen. Knollys.
Private Secretary	H. W. Fisher, Esq.
Attorney-General	Sir W. J. Alexander, Q.C.

HER MAJESTY'S CHIEF OFFICERS OF STATE.

First Lord of the Treasury	.. ..	Viscount Palmerston.
Lord High Chancellor	.. ..	Lord Westbury.
Chancellor of the Exchequer	.. ..	Right Hon. W. E. Gladstone.
Lord President of the Council	.. ..	Earl Granville.
Lord Privy Seal	.. ..	Duke of Argyll.
Secretaries of State	{ Home Department Foreign Affairs Colonies War India	Right Hon. Sir G. Grey.
		Earl Russell.
		Right Hon. E. Cardwell.
		Earl De Grey and Ripon.
		Right Hon. Sir C. Wood.
First Lord of the Admiralty	.. ..	Duke of Somerset.
President of the Board of Trade	.. ..	Right Hon. T. M. Gibson.
Chancellor of the Duchy of Lancaster	.. ..	Earl of Clarendon.
President of the Poor-Law Board	.. ..	Right Hon. C. P. Villiers.
Postmaster-General	.. ..	Lord Stanley of Alderley.

(The above form the Cabinet.)

First Commissioner of Works	Right Hon. T. Cowper.
Secretary for Ireland	Right Hon. Sir Robert Peel.

SCOTLAND.

Lord High Constable	Earl of Erroll.
Keeper of the Great Seal	Earl of Selkirk.
Deputy Keeper of the Great Seal	J. H. Mackenzie, Esq.
Lord Privy Seal	Earl of Dalhousie.
Knight Marischal	Duke of Hamilton.
Master of the Household	Duke of Argyll.
Standard Bearer	Earl of Lauderdale.
Lord High Commissioner	Lord Belhaven.
Lord Justice General	Right Hon. D. McNeill.
Lord Justice Clerk	Right Hon. John Inglis.
Lord Advocate	Right Hon. J. Moncreiff.
Solicitor-General	G. Young, Esq.
Deputy Clerk Register	W. P. Dundas, Esq.
Commander of the Forces	Major-Gen. E. W. F. Walker.
Assistant Adjutant-General	Colonel Sir J. Douglas.

IRELAND.

Lord Lieutenant	Earl of Carlisle.
Chief Secretary and Keeper of Privy Seal	Sir Robert Peel.
Under Secretary	Major-Gen. Sir T. Larcon.
Chief Clerk	R. N. Matheson, Esq.
State Steward	Viscount St. Lawrence.
Private Secretary to State Steward	J. Hatchell, Esq.
Chamberlain	Captain P. Butler.
Lord Chancellor	Right Hon. M. Brady.
Secretary to the Lord Chancellor	M. Perrin, Esq.
Master of the Rolls	Right Hon. T. B. C. Smith.
Attorney-General	Right Hon. T. O'Hagan, M.P.
Solicitor-General	J. A. Lawson, Esq.
Commander of the Forces	Sir George Brown.
Military Secretary	Lieut.-Colonel E. A. Whitmore.

CITY OFFICERS.

LORD MAYOR—Right Hon. W. S. HALE (Coleman-street, 1856).

SHERIFFS—Aldermen Dakin and Besley.

UNDER-SHERIFFS—S. Davidson and Henry De Jersey.

CHAMBERLAIN—Benjamin Scott, Esq.

RECORDER—Russell Gurney, Esq., Q.C.

COMMON SERJEANT—R. Chambers, Esq., Q.C.

ALDERMEN.

THE FOLLOWING HAVE PASSED THE CHAIR.

Copeland, William Taylor, Esq.	Bishopsgate	1829
Wilson, Samuel, Esq.	Bridge Without	1831
Duke, Sir James, Bart.	Farringdon Without	1840
Musgrove, Sir John, Bart.	Broad-street	1842
Challis, Thomas, Esq.	Cripplegate	1843
Sidney, Thomas, Esq.	Billingsgate	1844
Salomons, Sir Francis Graham, Bart.	Portoken	1844
Moon, Sir David, Esq.	Cordwainer	1848
Finis, Thomas Quesed, Esq.	Tower	1848
Carden, Sir Robert Walter	Dowgate	1849
Carter, John, Esq.	Cornhill	1851
Rose, William Anderson, Esq.	Queenhithe	1855
Lawrence, William, Esq.	Bread-street	1856

THE FOLLOWING HAVE NOT PASSED THE CHAIR.

Phillips, Benjamin Samuel, Esq.	Farringdon Within	1857
Gabriel, Thomas, Esq.	Vintry	1857
Allen, W. F., Esq.	Cheap	1858
Mechi, John Joseph, Esq.	Lime-street	1858
Abbiss, James, Esq.	Bridge Within	1859
Lawrence, Jas. Clarke, Esq.	Walbrook	1860
Dakin, Thomas, Esq.	Candlewick	1861
Besley, Robert, Esq.	Aldersgate	1862
Gibbons, S. J., Esq.	Castle Baynard	1862
Waterlow, Sydney, Esq.	Langbourne	1863
Lusk, Andrew, Esq.	Aldgate	1863
Stone, G., Esq.	Bassishaw	1864

GOVERNMENT OFFICES AND OFFICERS.

TREASURY,

WHITEHALL.

Lords Commissioners—Viscount Palmerston, K.G.; Right Hon. W. E. Gladstone, E. H. K. Hugessen, Sir W. Dunbar, Lieut.-Col. L. White. *Joint Secretaries*—Hon. H. B. Brand, Right Hon. F. Peel. *Assistant Secretary*—G. A. Hamilton. *Audit, Civil List*—G. Arbuthnot. *Principal Clerks*—S. Shelley, C. W. Stronge, W. G. Anderson, W. Law. *Private Secretaries to First Lord*—C. G. Barrington, Hon. E. Ashley. *Solicitor*—H. R. Reynolds.

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6, OLD PALACE-YARD.

Chancellor—Rt. Hon. W. E. Gladstone. *Comptroller*—Lord Montagu. *Assistant*—G. S. Frederick, Esq. *Chief Clerk*—H. W. Chisholm. *Private Secretary to Chancellor*—C. L. Ryan, Esq.

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Private Sec. to Marquis of Hartington—R. H. Hobart. *Private Secretary to Sir E. Lugard*—W. R. Buck.

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Director of Ordnance—Gen. J. St. George. *Inspector-General of Militia*—Gen. Lord F. Paulet, C.B.

Inspector-General of Volunteers—Col. M'Murdo, C.B. *Commissioner-General in Chief*—W. J. Tyrone Power, C.B.

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Librarian—W. O. Marshall. *COMMANDER-IN-CHIEF'S OFFICE.* *HORSE GUARDS.*

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Storekeeper-General—Hon. R. Dundas. *Director Med. Dep.*—Dr. A. Bryson. *Chief Clerk*—C. H. Pennell.

Private Secretary—Capt. R. Hall, R.N. *Solicitor*—A. R. Bristow. *Hydrographer*—Capt. Richardson.

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Clerk—R. M. Bland. *WOODS AND FORESTS.* *1, WHITEHALL-PLACE.*

Commissioners—Hon. C. A. Gore, Hon. J. K. Howard. *Principal Clerks*—R. Rotton, J. F. Redgrave.

Solicitor—H. Watson. *WORKS, PARKS, AND BUILDINGS.* *12, WHITEHALL-PLACE.*

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2, PARLIAMENT-STREET. *Director*—A. W. Fonblanque. *Assistant*—R. Vally.

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POST OFFICE. *ST. MARTIN'S-LE-GRAND.* *Postmaster-General*—Lord Stanley of Alderley.

Secretary—T. Tilley, Esq. *Assistant Secretaries*—F. Hill, F. J. Scudamore. *Private Secretary*—J. L. Du P. Taylor.

CUSTOM HOUSE. *THAMES-STREET.* *Chairman*—Right Hon. Sir T. F. Fremantle.

Deputy—F. Goulburn. *Secretary*—F. G. Gardner. *Assistant Secretary*—G. Dickens.

INLAND REVENUE OFFICE. *SOMERSET-HOUSE.* *Chairman*—W. H. Stephenson. *Deputy*—C. J. Herries.

Secretaries—T. Sargent, W. Corbett. *AUDIT OFFICE.* *SOMERSET-HOUSE.*

Chairman—E. Romilly. *Secretary*—C. Z. Macaulay. *POOR-LAW BOARD.*

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Associate to Lord Chief Justice—Hon. H. E. Campbell. *COMMON PLEAS.*

Lord Chief Justice—Sir W. Erie. *Judges*—Sir E. V. Williams, J. S. Willes, J. B. Byles, H. S. Keating. *Associate to Lord Chief Justice*—T. W. Erie.

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Judge—Rt. Hon. S. Lushington, D.L.C. *Queen's Advocate*—Sir R. J. Phillimore. *Advocate-General*—T. Twiss, D.C.L.

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FEBRUARY.



WILD DUCK SHOOTING.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.			DURATION OF MOONLIGHT.				HIGH WATER AT				Day of Year.		
			Rises.	Souths after Noon.		Sets.	Rises. Morn.	Sets. Aftern.		Before Sunrise.		Moon's Age.	After Sunset.		London Bridge.			Liverpool Dock.	
				H.	M.			H.	M.	H.	M.		H.	M.	O'Clock.	8		O'Clock.	8	Morn.	Aftern.	Morn.	Aftern.
1	W	New River commenced	7 41	13	56	4 48	9 48	11 58			5				5 27	5 49	2 27	2 50	32
2	Th	Purification, Candlemas Day	7 39	14	34	50	10 17	Morn.			6				6 12	6 37	3 15	3 38	33
3	F	Blaise	7 38	14	10	4 51	10 53	1 13			7				7 0	7 24	4 2	4 32	34
4	S	Fair on Thames, 1814	7 36	14	15	4 53	11 35	2 22			8				7 54	8 29	5 7	5 46	35
5	S	5TH S. AFT. EP. Agatha	7 34	14	20	4 55	Aftern.	3 24			9				9 8	9 48	6 26	7 9	36
6	M	Length of day 9h. 24m.	7 33	14	24	4 57	1 15	4 18			10				10 31	11 15	7 53	8 31	37
7	Tu	Mean Daily Temperature, 37 deg.	7 31	14	27	4 59	2 14	5 5			11				11 53	—	9 6	9 34	38
8	W	Mary Queen of Scots beheaded, 1587	7 29	14	29	5 0	3 15	5 45			12				0 28	0 56	9 58	10 21	39
9	Th	Day breaks, 5h. 33m.	7 27	14	31	5 2	4 20	6 17			13				1 20	1 43	10 42	11 1	40
10	F	Twilight ends 7h. 0m.	7 26	14	31	5 4	5 24	6 45			14				2 4	2 23	11 18	11 37	41
11	S	Commercial Treaty, 1860	7 24	14	31	5 6	6 28	7 10			15				2 40	2 59	11 53	—	42
12	S	SEPTUAGESIMA	7 22	14	30	5 8	7 30	7 33			16				3 15	3 30	0 8	0 25	43
13	M	Length of day 9h. 50m.	7 20	14	29	5 10	8 34	7 54			17				3 47	4 1	0 39	0 56	44
14	Tu	St. Valentine	7 18	14	26	5 12	9 37	8 16			18				4 18	4 33	1 11	1 26	45
15	W	Massacre of Glencoe, 1692	7 16	14	23	5 13	10 40	8 38			19				4 48	5 3	1 41	1 55	46
16	Th	Dr. Kane died, 1857	7 14	14	20	5 15	11 43	9 2			20				5 17	5 32	2 10	2 26	47
17	F	Michael Angelo died, 1564	7 12	14	15	5 17	Morn.	9 31			21				5 48	6 6	2 44	3 1	48
18	S	Luther died, 1546	7 10	14	10	5 19	0 46	10 3			22				6 23	6 43	3 21	3 44	49
19	S	SEXAGESIMA	7 8	14	4	5 21	1 48	10 43			23				7 6	7 33	4 11	4 40	50
20	M	Joseph Hume died, 1855	7 6	13	58	5 22	2 46	11 32			24				8 2	8 37	5 15	5 58	51
21	Tu	Day breaks 5h. 11m.	7 4	13	51	5 24	3 39	Aftern.			25				9 20	10 4	6 42	7 24	52
22	W	Barry died, 1806	7 2	13	43	5 26	4 28	1 35			26				10 46	11 28	8 6	8 42	53
23	Th	Twilight ends 7h. 21m.	7 0	13	35	5 28	5 9	2 48			27				—	0 4	9 12	9 37	54
24	F	Cambridge Lent Term divides	6 58	13	26	5 30	5 46	4 9			28				0 34	0 59	10 1	10 27	55
25	S	St. Matthias	6 56	13	16	5 31	6 18	5 31			29				1 23	1 49	10 51	11 12	56
26	S	QUINQUAGESIMA [Shrove Sunday]	6 54	13	6	5 33	6 47	6 54			1				2 13	2 34	11 34	11 57	57
27	M	Mean Daily Temperature, 40 deg.	6 52	12	55	5 35	7 17	8 17			2				2 56	3 19	—	0 19	58
28	Tu	Shrove Tuesday	6 50	12	44	5 37	7 46	9 39			3				3 41	4 1	0 39	1 1	59



MISS BATEMAN AS LEAH.—FROM "THE ILLUSTRATED LONDON NEWS."

MANY thousands of the London playgoers have been enchanted with the power and grace of Miss Bateman's touching dramatic representation of Leah, the effect of which can be compared to nothing of its kind upon the stage of late years, except the noblest efforts of Adelaide Ristori. Miss Kate Josephine Bateman was born at Baltimore in 1842. She was a precocious child, one of "the Bateman family," when she was exhibited in this country eleven or twelve years ago. She has since, we believe, spent much time in private study, and her reappearance on the stage took place in 1859. She then successively performed, in the principal American Theatres, the parts of Evangeline, founded on Longfellow's poem of that name; Geraldine, in a play written for her by Mrs. Bateman, her mother; Julia, in Sheridan Knowles's play of "The Hunchback;" Pauline, in "The Lady of Lyons;" and Shakspeare's Juliet and Lady Macbeth. Our Engraving represents Miss Bateman in her well-known character of Leah. The energy of this actress is undoubted, and her intelligence enables her to surmount the difficulties of a somewhat inflexible organ, and gives to her performances something more than a mere semblance of passion. And in the height of her despair, after the marriage of her lover with her Christian rival, when with a broken heart she pronounces the dreadful malediction on the Torrenz family and leaves the fatal spot where she had suffered more than a common persecution, her acting

was not only effective, but very meritorious. Apart from its character as illustrative of Jewish feeling in the utterance of the curse, this scene has a domestic interest which, on the stage, is always certain to be effective; and in combination with a strong situation and high feeling, it is not to be wondered at that such an interest should make a deep impression on the public.

STATISTICS OF CITY MARKETS.—Leadenhall yielded an income amounting to £28,242, the costs of management amounted to £9689; Newgate Market produced a total revenue of £43,561, the expenses were £8219; Farringdon produced £9789, and cost £11,085, which is a very bad case indeed; Smithfield produced in dues £18,147, and by tolls, £4214 a total of £22,361; the expenses of management were £12,993. Billingsgate contributed to the exchequer £50,018, and cost in ordinary expenditure £23,857. There are two other charges on Billingsgate—namely, £126 for deepening the river and £808 law charges on metage of oysters. Street tolls were prolific of income once upon a time, but as in 1854 they were discontinued there are but two entries under this head. In 1853 and 1854 the produce of street tolls was £11,620, but there is no entry of expenses, and we must suppose that they have crept into some mixture of incidentals and casuals.

FERNS AND BUTTERFLIES.

JANUARY AND FEBRUARY.

BOTANICAL rambles in the fields in search of wild flowers are now almost impossible; yet to the lover of nature there is much to attract in a country walk on the crisp, hard ground, and even the collector need not leave his vases behind him: for there are objects of interest to be found which are certain to be overlooked during the gay time of summer, when the fields wear their most showy attire. During the past dark winter months we may perhaps have discovered that there is something universal in the law that ascribes the highest excellence to many things which are unseen and hidden and have to be sought for to be found. It is not those qualities which attract the eyes or the senses generally that should alone recommend to notice; neither must we forget that the very evident beauties of our summer flowers often obscure from notice the more delicate and unobtrusive charms of the winter denizens of the field and forest. Many of these have been there all the summer long; some only attain their beauty after the heat of the sun is gone; but so busy have we been with the bright colours of the light-loving flowers that we have scarcely observed the delicate forms of the lichen, or the rich colours of the many fungi which now cover every tree, and palling, and bit of old wall we pass. The fungi include some of the most curious of vegetable forms, and it would be difficult to say where they may not be found. Not only are shady woods, mossy dells, secluded lanes, and green pasture the habitats of fungi; but we meet with them in almost every situation where vegetable life is possible, and traces of them where it is not. Wherever decaying vegetable matter exists, we may expect to find a new race flourishing amid the debris, as in the decay of the garden of the sensitive plant described by Shelley—

And plants, at whose name the verse feels loath,
Fill'd the place with a monstrous undergrowth,
Prickly, and pulpy, and blistering, and blue,
Livid and starr'd with a lurid hue.

And agarics and fungi with mildew and mould
Started like mist from the wet ground cold;
Pale, fleshy, as if the decaying dead
With a spirit of growth had been animated.

Their mass rotted off them flake by flake,
Till the thick stalk stuck like a murderer's stake,
Where eggs of loose flesh yet tremble on high,
Infecting the winds that wander by.

But we must not suppose that all fungi merit this terrible description. One of the commonest is *B. edulis*, which is the fungus represented in our Plate, and which, in the opinion of some, is scarcely inferior to the best mushroom in flavour. Dr. Badham says:—"Its tender, juicy flesh, and delicate, sapid flavour, render it equally acceptable to the plain and to the accomplished cook. It imparts a relish alike to the homely hash and the dainty ragout, and may be said to improve every dish of which it is a constituent." Let us not, however, encourage the rash partaking of these dainties by those who have not studied the differences in the species. Some boleti are very unwholesome and almost poisonous; perhaps those most attractive to the eye are the least fit for food. Whilst looking for fungi we shall be sure to come across lichens of various forms—perennial plants, spreading over rocks, trees, and other dry places. One great distinction between lichens and fungi is, that whilst the latter are found always growing on dead and decayed substances, the former very commonly grow on the living bark of trees, in the midst of active life, and healthy, vigorous plants. In such quiet dells as we hope to find ferns, there we shall probably see lichens; but it is in the winter, chiefly, we observe them. In the early development of ferns we are often reminded of the lichen, and the green membranous mass in which it first appears greatly resembles the form of some of that family. The tiny spore which is the origin of the fern is the representative of the bud in higher plants, although it is often thought to be the seed. If we watch its development we shall find that it does not directly grow up to be a fern, but that, after having attached itself to a damp piece of earth or rock, it begins to expand into the form of a green membrane. This green membranous mass, on account of its resemblance to the fronds of the common *Marchantia polymorpha*, has been called the *marichantia-like* expansion of the fern. It is also called the *Prothallus*. On the surface of this little body there appears in course of time two sets of organs—the one called *pistillidia*, containing in their interior little ovoid bodies, which are the representatives of the ovules, or seed-buds, of higher plants. The other organs are called *archegonia*; they contain little, moveable, worm-like bodies, called *spermatozoids*, and which are found in many of the lower forms of plants. These bodies represent the pollen or pollen-tube of flowering plants. They find their way to the ovules contained in the *pistillidia*; and it is after the mixture of the produce of these two different cells that the young fern shoots forth from the surface of the *prothallus*, and grows up into a new plant, like other plants having roots, stems, and leaves, or fronds. The roots of ferns are composed of small fibres, which are sent down from the stem, and they perform the same functions as in other plants. They serve to keep the plant in the soil in which it grows, and are also endowed with the property of absorbing from the soil, the food which the plant requires for its nutrition.

The stem of a fern consists of a mass of tissue, from which the stalks of the fronds proceed upward and the root downward. In British ferns these stems seldom rise into the air, but are either buried in the earth or lie prostrate on it. In the common polypody and spleenwort they attain a considerable size. When out of the ground they are covered with scales, or hairs, and present a very shaggy appearance. In some cases, as in the brakes and flowery fern, the stem rises erect in the air, and bears its fronds in the same way as other plants bear their leaves. These stems rise from the rhizoma, or root-stock, which may generally be described as a creeping underground or horizontal stem. Sometimes this rhizoma sends out so many shoots that they form a fine network beneath the soil; but more often this portion of the fern occupies little space in the ground. Some root-stocks of ferns are of a deep, rich, red-brown hue. A very common species in our conservatories is the hare-foot fern (*Davallia canariensis*), which, as its name implies, has been imported from that region of beautiful plants, the Canary Island. It has dark, shaggy masses of root-stock about the base of its fronds, which terminate in a thickened extremity, and, being densely clothed with brown hair, instantly remind us of the leg and foot of the animal after which it is named. None of our native ferns rise more than six feet in height, and these are rare specimens. When growing in large numbers they are sometimes conspicuous on the landscape; but it is in tropical regions only that they give a characteristic feature to the scenery and assume the dimensions of trees. Herbaceous ferns belong chiefly to cold and temperate climates; but in the warmer regions shrubby ferns cover the ground, forming, like our common brake, an undergrowth in woods, while the herbaceous species are found chiefly growing upon

trees, where, clinging to the topmost boughs and investing the rugged trunks with their green sprays, they display a luxuriance and beauty unknown to British ferns. Tree ferns of exquisite grace and form grow in the tropical forest. Whether, however, of humble growth, or rising to the height of twenty or thirty feet or more, they have all the same formation of stem—consisting entirely of a mixture of woody and cellular tissue. An Eastern traveller, when referring to the marvellous tree ferns which he saw in an Australian forest, says:—"One might almost fancy that the tall dense forests around it had drawn up the well-known shrub, or rather weed, of our English deer parks into a higher order of the vegetable family. When I left England some of my friends were fern mad, and were nursing little microscopic varieties with vast anxiety and expense. Would that I could place them for a minute beneath the patulous umbrella of this magnificent species of *Cryptogamia*." On the forks of some of the old timber trees in this favourable region grow also the stag's-horn fern (*Acrostichum aleiforme*), as large as the largest cabbage, the fronds exactly resembling the palmated antlers of the moose and the reindeer. The luxuriant and picturesque growth of other species of ferns, some of which hang on the branches of trees or form a massive undergrowth to the towering ferns from whose tops spring large, waving fronds, are subjects for the pen and the pencil of all travellers in these regions. Baron Humboldt abounds in descriptions of the ferns in the forests of South America, and all writers on New Zealand tell us of the remarkable and luxuriant growth of the ferns of that island. Humboldt remarks that the densest of shade is produced by these arborescent ferns in the American forests. He describes some of the old trunks of these ferns as having a metallic lustre, owing to a carbonaceous powder with which they are covered; and he adds that no other plant exhibits this phenomenon.

The nature of the stems of ferns is the same in all cases; but where the stem is perennial, and does not wither down and die with the fronds, it consists of the remains of the successive annual developments of the fronds. The fronds vary very much in form, in size, and also in duration. Sometimes the frond is like a long narrow leaf, with wavy edges, as in the hart's-tongue; but by far the greater number of our native ferns have their fronds divided into numerous branches and segments. When the blade is undivided it is called *entire*. When it is scalloped out and the indentations do not reach the midrib, or central line, running up the frond, it is said to be *pinnatifid*. When the indentations reach the midrib and leave a series of little leaflets, or pinnae, the frond is said to be *pinnate*. The pinnae may be again divided down to their veins, or ribs, and the frond is then called *bipinnate*, or twice-cut. When this occurs a third time, it is called *tripinnate*, and when oftener the frond is said to be *decompound*. The latter does not, however, often occur in British species. The more vigorous specimens of our common brakes occasionally present it. When the fronds are first formed in the bud they are rolled up in a peculiar way, and these singular scroll-like forms must often have been observed by all who notice our hedgebanks in the early spring, for there they may often be seen in company with wild anemones, bluebells, and clumps of primroses. The whole frond is rolled up from the point to the base upon itself. In compound ferns, like the common brakes, the divisions are also each rolled up in the same way, exhibiting, therefore, a number of pale green curves, looking like a shepherd's crook. This arrangement occurs in other plants, and is called *circinate*. All British ferns, with the exception of the adder's-tongue and moonwort, have this circinate arrangement of their fronds. The *veins* or *ribs* of the fronds are variously arranged, forming characteristic tests for classification of species. These veins are never netted, as in the majority of flowering plants, but they are often forked, or dichotomous. Some botanists attach great importance to this variation in ferns as a distinction of species, and in *Hooker's Journal of Botany*, and other works devoted to the subject, the matter is fully discussed. It is on some spot among these veins that the capsules or seed-vessels are placed, and this particular point is called the *receptacle*. The organs of fructification consist of a number of little capsules, called seed-cases, spore-cases, sporangia, or thecae. These, collected together into little clusters, are called *sori*; the sori are placed upon the receptacle. Under the microscope these capsules are beautiful objects, resembling little hollow spheres of crystal tinged with a delicate brown hue, and are discovered in most cases to consist of one cell or cavity, and to be surrounded by a jointed elastic ring, and to be supported below on an exquisitely slender stalk. When the spores are fully matured the elastic nature of this ring causes various quick movements, which brush the spore-case transversely, and scatter the spores about in the form of fine dust. In some ferns, as in the flowering fern (*Osmunda*), the moonwort (*Botrychium*), and the adder's-tongue (*O. filix-mas*), the seed-cases have not the elastic ring, but are two-valved. In the greater part of British ferns the sori are covered during the earlier period of their development with a thin membranous covering, which is called an *indusium*. Some ferns possess this organ, which is very evident when they are young. It is, however, cast off as the sori attain maturity. The presence or absence of this indusium is looked upon as an important point in the economy of ferns, and they are divided according to this fact. The operation of spore, as soon as it escapes from its little case and begins a free and independent life for itself, we have already noticed; and the same history applies to each individual spore, which fulfils its round of destiny in the great plan of vegetable life, producing its own kind, and never departing from the great law stamped on it by the Creator of all from the beginning. Many casual observers who have seen and admired the well-known British ferns by the wayside and hedges, or who have, with the aid of a gardener's skill and care, nourished and preserved the more delicate exotic ferns under glass coverings, have noticed, and perhaps felt, the little brown or orange-coloured patches at the back of the fronds, but have never fully understood their nature or functions, and have called them, indifferently, seeds or fruits. Possibly this short explanation of what they really are and what office they perform may increase the interest with which they may be regarded in future by those who happen to read these pages, and to cultivate or to collect ferns for the mere sake of their beauty.

Whilst seeking for the curious fungi and lichens of which we have spoken, we often find the larva or ehrysalis state of the gay inlaid infants of our summer gardens; and if we have a mind to watch their development we can collect and preserve these unpromising-looking objects until the warm summer sun shall bring them forth in all their radiance. Sometimes the change to a perfect insect occurs much earlier than usual, and we have seen occasionally, on a warm day in February, the advent of one of these lovers of sunshine such as the one represented in our Plate—*Cynthia Cardui*, the painted lady, looking, as she winged her way over the leafless shrubs and flowerless plants, as desolate and out of place as a Court lady arrayed in her jewels would feel if suddenly transported to an arid wilderness. Some of the last brood of the summer butterflies generally survive during the winter in a perfect state in some sheltered nook, and the first warm rays of a winter's sun may call them forth into life again for a few short hours.

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

THE CALENDAR.

PRINCIPAL ARTICLES OF THE CALENDAR FOR THE YEAR OF
OUR LORD 1865.

	Gregorian, or New Calendar.	Julian, or Old Calendar.
Golden Number	4	4
Epect	3	14
Solar Cycle	26	26
Roman Indiction	8	8
Dominical Letter	A	C
Septuagesima	Feb. 12	Jan. 31
Ash Wednesday	March 1	Feb. 17
Easter Sunday	April 26	April 4
Ascension Day	May 25	May 13
Pentecost—Whit Sunday	June 4	" 23
1st Sunday in Advent	Dec. 3	Nov. 28

The year 1865 is the latter part of the 5625th and the beginning of the 5626th year since the creation of the world, according to the Jews. The year 5626 commences on Sept. 21, 1865.

The year 1865 answers to the 6578th year of the Julian Period, to the 2618th from the foundation of Rome, to the 2641st year of the Olympiads, and to the year 7373-4 of the Byzantine Era.

The year 1282 of the Mohammedan Era commences on May 27, 1865, and Ramadan (month of abstinence observed by the Turks) commences on Jan. 28, 1865.

CALENDAR OF THE JEWS FOR THE YEAR 1865.

5625.		1865.		NEW MOONS AND FEASTS.	
Tebeth	10	January	8	Fast: Siege of Jerusalem	
Schebat	1	"	28		
Adar	1	February	27		
"	11	March	9	Fast of Esther	
"	14	"	12	Purim	
"	15	"	13	Schuschan Purim	
Nisan	1	"	28		
"	15	April	11	Passover begins*	
"	16	"	12	Second Feast*	
"	21	"	17	Seventh Feast*	
"	22	"	18	Eighth Feast*	
"	1	"	27		
Ijar	18	May	14	Lag B'omer	
"	1	"	26		
Sivan	6	"	31	Fast of Weeks*	
"	7	June	1	Second Feast*	
"	1	"	25		
Thammuz	17	July	11	Fast: Seizure of the Temple	
Ab	1	"	24		
"	15	August	1	Fast: Destruction of the Temple*	
Elu	1	"	23		
5326.					
Tischri	1	September	21	New Year's Feast*	
"	2	"	22	Second Feast*	
"	4	"	24	Fast: Death of Gedaliah	
"	10	"	30	Fast: Day of Atonement*	
"	15	October	5	Feast of the Tabernacles*	
"	16	"	6	Second Feast*	
"	21	"	11	Feast of Branches	
"	22	"	12	End of Feast of Tabernacles	
"	23	"	13	Feast of the Law*	
Marsches.	1	"	21		
Kislev	1	November	19		
"	25	December	13	Fast of the Dedication of the Temple	
Tebeth	1	"	19		
"	10	"	28	Fast: Siege of Jerusalem	
		1866.			
Schebat	1	January	17		

Those marked with an asterisk are strictly observed.

BEGINNING OF THE SEASONS, 1865.

				D.	H.	M.
Sun enters	Capricornus	and Winter	begins, 1864, Dec.	21	1	3 p.m.
" "	Aries	" Spring	" 1865, March	20	2	6 p.m.
" "	Cancer	" Summer	" "	June	21	45 a.m.
" "	Libra	" Autumn	" "	Sept.	23	1 a.m.
" "	Capricornus	" Winter	" "	Dec.	21	6 49 p.m.
The Sun will consequently be in the	Winter	signs	..	89	1	3
" "	" "	Spring	"	89	20	39
" "	" "	Summer	"	89	17	15
" "	" "	Autumn	"	89	14	49

The Summer Quarter is therefore 4 days 13 hours and 12 minutes longer than the Winter; 3 days 20 hours and 26 minutes longer than that of Autumn; and 17 hours and 36 minutes longer than that of Spring.

The Sun will be on the Equator and going North ..	1864	11	11	3.	March 20	2	6 p.m., his declin. being	0	0	0	
The Sun will reach his greatest North declination ..	June	21	10	45 a.m.			"	"	23	27	16

greatest North declination ...						
The Sun will be on the	Sept.	23	1	0 a.m.	„	„ 0 0 0
Equator and going South ...						
The Sun will reach his	Dec.	21	6	49 p.m.	„	„ 23 27 15
greatest South declination }						

The Sun will be North of the Equator (comprising the periods of Spring and Summer) 186 days 10 hours 54 minutes.

The Sun will be South of the Equator (comprising the periods of Autumn and Winter) 178 days 18 hours 52 minutes.

MOHAMMEDAN CALENDAR FOR THE YEAR 1865.

Year.	Name of the Months.	Month begins.
1281.	Schabân I.	December 30, 1864.
"	Ramadân I.	January 28, 1865.
"	Schewwâl I.	February 27 "
"	Dsu'l-kade I.	March 28 "
"	Dsu'l-hedsche I.	April 27 "
1282.	Moharrem I.	May 27 "
"	Safar I.	June 26 "
"	Rebi el-awwel I.	July 25 "
"	Rebi el-accher I.	August 24 "
"	Deschemâdi el-awwel I.	September 22 "
"	Deschemâdi el-accher I.	October 22 "
"	Redscheb I.	November 20 "
"	Schabân I.	December 20 "
"	Ramadân	January 18, 1866.

LAW TERMS, 1865.

As settled by Statutes 11 Geo. IV., and 1 Will. IV., cap. 70, s. 6 (passed July 23, 1830); and 1 Will. IV., cap. 3, s. 2 (passed Dec. 23, 1830).

Hilary Term	..	..	begins January 11	and ends January 31
Easter Term	..	..	" April 15	" May 11
Trinity Term	..	..	" May 25	" June 15
Michaelmas Term	..	..	" November 2	" November 25

UNIVERSITY TERMS, 1865.

OXFORD.

TERM.	BEGINS.	ENDS.
Lent	January 14	April 8
Easter	April 26	June 3
Trinity	June 7	July 8
Michaelmas	October 10	December 18

The Act, July 4.

CAMBRIDGE

TERM.	BEGINS.	DIVIDES.	ENDS.
Lent	January 13	Feb. 24, Noon.	April 7
Easter	April 21	May 22, Midnight	June 23
Michaelmas ..	October 1	Nov. 8, Noon.	Dec. 16

The Commencement, June 20.

ASTRONOMICAL SYMBOLS AND ABBREVIATIONS.

☉ The Sun	27 Euterpe	62 Erato
☾ New Moon	28 Bellona	63 Ausiona
☾ First Quarter of Moon	29 Amphitrite	64 Angelina
☾ Full Moon	30 Urania	65 Maximiliana
☾ Last Quarter of Moon	31 Euphrosyne	66 Maia
☿ Mercury	32 Pomona	67 Asia
♀ Venus	33 Polyhymnia	68 Leto
♂ or ♂ The Earth	34 Circe	69 Hesperia
♂ Mars	35 Lencothea	70 Panopea
♂ Ceres	36 Fides	71 Niobe
♀ Pallas	37 Atalanta	72 Feronia
♀ Juno	38 Leda	73 Clytie
♀ Vesta	39 Lætitia	74 Galatea
♂ Astrea	40 Harmonia	75 —
♂ Hebe	41 Daphne	76 Freia
♂ Iris	42 Isis	77 —
♂ Flora	43 Ariadne	78 Diana
♂ Metis	44 Nyx	79 Jupiter
10 Hygeia	45 Engenia	80 Saturn
11 Parthenope	46 Hestia	81 Uranus
12 Victoria	47 Aglaia	82 Neptune
13 Egeria	48 Doris	83 Degrees
14 Irene	49 Pales	′ Minutes of Arc
15 Eunomia	50 Virginia	″ Seconds of Arc
16 Psyche	51 Nemausa	D Days
17 Thetis	52 Europa	H Hours
18 Melpomene	53 Calypso	M Minutes of Time
19 Fortuna	54 Alexandra	S Seconds of Time
20 Massilia	55 Pandora	☉ Sunday
21 Lutetia	56 Metete	☾ Monday
22 Calliope	57 Mnemosyne	☾ Tuesday
23 Thalia	58 Concordia	☾ Wednesday
24 Themis	59 —	☾ Thursday
25 Phoebe	60 Danæe	☾ Friday
26 Proserpine	61 Echo	☾ Saturday

The Symbol of Conjunction, or having the same Longitude or Right Ascension.

The Symbol \square Conjunction, or differing 0° in Longitude or Right Ascension.
 " \square Quadrature, or differing 90° in Longitude or Right Ascension.
 " \square Opposition, or differing 180° in Longitude or Right Ascension.

" & Opposition, or uttering Rev in Congress or before the Court."

FIXED AND MOVABLE FESTIVALS, ANNIVERSARIES, &c.

Epiphany	Jan.	6	Ascension Day—Holy Thursd.	May	25
Septuagesima Sunday	Feb.	12	Pentecost—Whit Sunday ..	June	4
Quinquagesima—Shrove Sund. ..	"	26	Trinity Sunday	"	17
Ash Wednesday	March	1	Corpus Christi	"	20
St. David	"	1	Accession of Queen Victoria	"	20
Quadragesima—1st Sunday } in Lent	"	5	Proclamation St. John Baptist—Midsum- }	"	24
St. Patrick	"	17	mer Day	"	24
Annunciation—Lady Day	"	25	St. Michael — Michaelmas	Sept.	29
Palm Sunday	April	9	Dny	"	29
Good Friday	"	14	Birth of Prince of Wales ..	Nov.	9
EASTER SUNDAY	"	16	St. Andrew	"	30
Low Sunday	"	23	1st Sunday in Advent	Dec.	3
St. George	"	23	St. Thomas	"	21
Rogation Sunday	May	21	CHRISTMAS DAY	"	25
Birth of Queen Victoria	"	24			

MARCH.



FOXHUNTING.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.		DURATION OF MOONLIGHT.							HIGH WATER AT				Day of Year.				
			Rises.	Souths after Noon.	Sets.	Rises. Morn.	Sets. Aftern.	Before Sunrise.		Moon's Age.	After Sunset.		London Bridge.		Liverpool Dock.								
								O'Clock.	O'Clock.		O'Clock.	O'Clock.	Morn.	Aftern.	Morn.	Aftern.							
1	W	ASH WNSDAY. <i>St. David</i>	6 47	12 32	5 39	8 18	10 57	3	4	5	6	7	4	5	6	7	8	9	4 23	4 45	1 23	1 44	60
2	Th	<i>St. Chad</i>	6 45	12 20	5 40	8 53	Morn.						5						5 6	5 27	2 5	2 26	61
3	F	Day breaks 4h. 50m.	6 43	12 7	5 42	9 33	0 11						6						5 48	6 12	2 50	3 13	62
4	S	Twilight ends 7h. 36m.	6 41	11 54	5 44	10 20	1 17						7						6 35	7 1	3 39	4 6	63
5	S	QUADRAGESIMA. 1ST SUNDAY IN LENT	6 39	11 40	5 46	11 12	2 13						8						7 28	8 0	4 38	5 15	64
6	M	Length of day 11h. 11m.	6 36	11 26	5 47	Aftern.	3 3						9						8 37	9 21	5 59	6 42	65
7	Tu	<i>Perpetua</i>	6 34	11 12	5 49	1 9	3 46						10						10 4	10 47	7 25	8 8	66
8	W	Mean Daily Temperature, 40 deg.	6 32	10 57	5 51	2 13	4 21						11						11 30	—	8 44	9 12	67
9	Th	Rizzio assassinated, 1566	6 30	10 41	5 53	3 15	4 49						12						0 6	0 34	9 38	10 1	68
10	F	Prince of Wales married, 1863	6 28	10 26	5 54	4 19	5 14						13						1 0	1 23	10 20	10 38	69
11	S	Income Tax imposed, 1842	6 25	10 10	5 56	5 22	5 37						14						1 42	2 0	10 56	11 12	70
12	S	2ND SUNDAY IN LENT	6 23	9 53	5 58	6 25	6 1						15						2 18	2 34	11 28	11 43	71
13	M	<i>St. Gregory</i>	6 21	9 36	5 59	7 29	6 21						16						2 50	3 5	11 57	—	72
14	Tu	Byng executed, 1757	6 19	9 20	6 1	8 32	6 44						17						3 19	3 33	0 11	0 27	73
15	W	Earl St. Vincent died, 1823	6 16	9 26	6 3	9 35	7 8						18						3 49	4 3	0 41	0 57	74
16	Th	Duchess of Kent died, 1861	6 14	8 45	6 4	10 37	7 34						19						4 19	4 35	1 13	1 28	75
17	F	<i>St. Patrick</i>	6 12	8 27	6 11	11 38	8 6						20						4 50	5 5	1 43	1 58	76
18	S	Princess Louisa born, 1848	6 9	8 10	6 8	Morn.	8 41						21						5 20	5 37	2 15	2 34	77
19	S	3RD SUNDAY IN LENT	6 7	7 52	6 10	0 36	9 26						22						5 56	6 16	2 54	3 17	78
20	M	Length of day 12h. 6m.	6 5	7 34	6 11	1 30	10 17						23						6 39	7 2	3 40	4 8	79
21	Tu	Knighte Templars suppressed, 1312	6 3	7 16	6 13	2 19	11 18						24						7 30	8 3	4 41	5 23	80
22	W	Mean Daily Temperature, 41 deg.	6 0	6 57	6 15	3 2	Aftern.						25						8 45	9 29	6 7	6 51	81
23	Th	National Gallery founded, 1824	5 58	6 39	6 16	3 40	1 40						26						10 13	10 56	7 34	8 12	82
24	F	Queen Elizabeth died, 1603	5 56	6 21	6 18	4 12	3 0						27						11 34	—	8 44	9 13	83
25	S	Annunciation. Lady Day	5 53	6 26	6 20	4 44	4 22						28						0 6	0 35	9 38	10 3	84
26	S	4TH SUNDAY IN LENT	5 51	5 44	6 21	5 13	5 44						29						1 0	1 25	10 25	10 47	85
27	M	Stillington died, 1699	5 49	5 25	6 23	5 43	7 7						30						1 47	2 9	11 9	11 32	86
28	Tu	Abercrombie died, 1801	5 47	5 7	6 25	6 14	8 30						1						2 31	2 54	11 54	—	87
29	W	Day breaks 3h. 45m.	5 44	4 49	6 26	6 49	9 49						2						3 16	3 37	0 15	0 37	88
30	Th	Sicilian Vespers, 1282	5 42	4 30	6 28	7 28	11 0						3						3 59	4 22	1 0	1 23	89
31	F	Twilight ends 8h. 30m.	5 40	4 12	6 30	8 14	Morn.						4						4 45	5 7	1 45	2 7	90



"THE BEACON," BY ABSOLON.—FROM "THE ILLUSTRATED LONDON NEWS."

STAMP AND OTHER GOVERNMENT DUTIES.

RECEIPTS.

For £2 and upwards One Penny.
N.B. Persons receiving the money are to pay the duty.

Receipts may be stamped within fourteen days of date on payment of £5, or within one month on payment of £10, penalty: after that time they cannot be stamped.

Penalty for giving a receipt without a stamp £10

Penalty for not effectually cancelling or obliterating adhesive stamps when used £10

Penalty for frauds in the use of adhesive stamps £20

AGREEMENTS (NOT UNDER SEAL).

Of the value of £5 or upwards 6d
If the agreement contains 2160 words, or upwards, then for every quantity of 1080 words over the first 1080 a further progressive duty of 6d.

Exemptions.—Letters containing any agreement in respect of merchandise, by post, between merchants or traders in Great Britain or Ireland, residing, and actually being, at the time, at the distance of fifty miles from each other; agreements relating to sale of goods; to hire of labourers, servants, and seamen; and to rack-rent leases under £5 per annum.

Agreements may be stamped within fourteen days after date without penalty, and at any time after fourteen days on payment of £10 penalty.

LEASES AND CONVEYANCES.

Lease or Tack of any lands, tenements, hereditaments, or heritable subjects, at a yearly rent, for less than thirty-five years, or less than a year, without any sum of money by way of fine, premium, or grassum paid for the same:—

Yearly rent not exceeding £5 . . . 0	Exceed. £25 and not exc. £50 . . . 5	0
Exceed. £5 and not exc. £10 . . . 1	50 . . . 7	5
10 . . . 1	75 . . . 10	0
15 . . . 1	100 . . . 10	0
20 . . . 2	100, then for every £50 . . . 5	0
25 . . . 2	or any fractional part of £50 . . . 5	0

Lease or Tack of any lands, tenements, hereditaments, or heritable subjects, for any term of years exceeding thirty-five, at a yearly rent, with or without any sum of money by way of fine, premium, or grassum.

	Term not exceeding 100 Years.	Term exceeding 100 Years.
Where yearly rent not exceeding £5	£ s. d. 0 3 0	£ s. d. 0 6 0
And where exceeding £5 and not exceeding £10	0 6 0	0 12 0
10	0 9 0	0 18 0
15	0 12 0	1 4 0
20	0 15 0	1 10 0
25	1 10 0	3 0 0
30	2 5 0	4 10 0
35	3 0 0	6 0 0
Same exceeding £100, then for every £50, and also for any fractional part of £50	1 10 0	3 0 0

And where any such Lease or Tack as aforesaid shall be granted in consideration of a fine, premium, or grassum, and also of a yearly rent, such Lease or Tack shall be chargeable also, in respect of such fine, premium, or grassum, with the *ad valorem* stamp or conveyances, pursuant to the 13th and 14th Vict., c. 97; see below.

Duplicate or Counterpart are chargeable with Progressive Duty, as under the 13th and 14th Vict., c. 97.

LICENSE TO DEMISE COPYHOLD LANDS, TENEMENTS, OR HEREDITAMENTS, OR THE MEMORANDUM THEREOF, IF GRANTED OUT OF COURT, AND THE COPY OF COURT ROLL OF ANY SUCH LICENSE, IF GRANTED IN COURT:—

Where the clear yearly value of the estate to be demised shall be less than a yearly rent equal to such yearly value, under the Act of the 13th and 14th Vict., c. 97. 14th Vict., c. 97.

And in all other cases, 10s.

CONVEYANCE (pursuant to 13th and 14th Vict., c. 97):—

Purchase or consideration money expressed:	£ s. d.	Exc. £200 and not exc. £225 . . .	£ s. d.
Not exceeding £25	0 2 6	225 . . .	1 5 0
Exc. £25 and not exc. £50	0 5 0	250 . . .	1 7 6
50	0 7 6	275 . . .	1 10 0
75	10 0 0	300 . . .	1 15 0
100	12 6	350 . . .	2 0 0
125	15 0	400 . . .	2 5 0
150	17 6	450 . . .	2 10 0
175	20 0	500 . . .	2 15 0
		550 . . .	3 0 0

LETTER OR POWER OF ATTORNEY.

Letter or Power of Attorney, or commission or factory in the nature thereof £1 10 0

And where the same, together with any schedule or other matter put or indorsed thereon, or annexed thereto, shall contain 2160 words or upwards, then for every entire quantity of 1080 words contained therein, over and above the first 1080 words, a further progressive duty of 20s. under 55th George III., but under Act of 1850 0 10 0

Power for payment of an annual sum not exceeding £10, or a sum not exceeding £20 0 5 0

ADMISSIONS.

To act in any Court as Advocate	£50
To the degree of a Barrister-at-law in England or Ireland	50
As Attorney, Solicitor, or Proctor in England or Ireland	25
To act as Notary Public in England	30
To be Fellow of College of Physicians	25
To a Corporation in respect of privilege	1
To ditto any other ground	3

BILLS OF EXCHANGE, PROMISSORY NOTES, &c.

INLAND BILL OF EXCHANGE, DRAFT, or Order for Payment to the Bearer, or to Order, at any time otherwise than on Demand, of any sum of money:—

	£ s. d.
Not exceeding £5	0 0 1
Exc. £5 and not exc. £10	0 0 2
10	0 0 3
25	0 0 6
50	0 0 9
75	0 1 0
100	0 2 0
200	0 3 0
300	0 4 0
400	0 5 0
500	0 7 6
750	10 0 0
1000	15 0 0
1500	20 0 0
2000	25 0 0
3000	40 0 0
£4000 and upwards, <i>ad valorem</i> duty of 10s. per £1000.	

FOREIGN BILL OF EXCHANGE drawn in, but payable out of, the United Kingdom—if drawn singly, or otherwise than in a set of three or more—the same duty as on an Inland Bill of the same amount and tenor. If drawn in sets of three or more, for every bill of each set where the sum payable thereby shall

	£ s. d.
Not exceed £25	0 1
Above £25 and not exc. £50	0 2
50	0 3
75	0 4
100	0 8
200	1 0
300	1 4
400	1 8
500	2 6
750	3 4
1000	5 0
1500	6 8
2000	10 0
3000	13 4
4000	16 8
Exceeding £4000, for every £1000 or fraction	3 4

Foreign Bill of Exchange drawn out of, and payable within, the United Kingdom, not exceeding £500, same as Inland Bill.

Ditto, exceeding £500, 1s. per £100.

Foreign Bill of Exchange drawn out of, and payable out of, the United Kingdom, but indorsed or negotiated within the United Kingdom, same duty as on Foreign Bill drawn within the United Kingdom and payable out of the United Kingdom.

Bills indorsed out of the United Kingdom the same only as on Inland Bill, otherwise than on demand.

CHEQUES, DRAFTS, OR ORDERS ON DEMAND.

All Drafts, Warrants, or Orders for the payment of money are chargeable with a stamp duty of one penny, by using an adhesive receipt stamp, which must be cancelled by the person drawing the cheque, draft, or order, by writing his name on the stamp.

BONDS AND MORTGAGES.

	£ s. d.	Exc. £150 and not exc. £200 . . .	£ s. d.
Not exceeding £50	1s. 3d.	200 . . .	5s. 0d.
Exc. £50 and not exc. 100	2 6	250 . . .	6 3
100	3 9	300 . . .	7 6

And where the same shall exceed £300, then for every £100, and also for any fractional part of £100, s. 6d.

And where any such bond or mortgage shall contain 2160 words or upwards, then for every entire quantity of 1080 words contained therein over and above the first 1080 words there shall be charged the further progressive duty following—viz., where such bond or mortgage shall be chargeable with any *ad valorem* stamp duty, not exceeding 10s., a further progressive duty equal to the amount of such *ad valorem* duty or duties. And in every other case a further progressive duty of 10s. See, as to Inland Revenue Bonds, the 18th and 19th Vict., c. 78, s. 6.

PATENTS FOR INVENTIONS—STAMP DUTIES ON.

On petition for grant of letters patent	£5 0 0
On certificate of record of notice to proceed	5 0 0
On warrant of law officer for letters patent	5 0 0
On the sealing of letters patent	5 0 0
On specification	5 0 0
On the letters patent, or a duplicate thereof, before the expiration of the third year	50 0 0
On the letters patent, or a duplicate thereof, before the expiration of the seventh year	100 0 0
On certificate of record of notice of objections	2 0 0
On certificate of every search and inspection	0 1 0
On certificate of entry of assignment or license	0 5 0
On certificate of assignment or license	0 5 0
On application for disclaimer	5 0 0
On caveat against disclaimer	2 0 0

Duty on Foreign Bills drawn out of the United Kingdom to be denoted by adhesive stamps.

Promissory Note for the Payment in any other manner than to the Bearer on Demand of any sum of money:—

	£ s. d.
Not exceeding £5	0 1
Above £5 and not exc. £10	0 2
10	0 3
25	0 6
50	0 9
75	1 0

Promissory Note for the payment, either to the Bearer on Demand, or in any other manner than to the Bearer on Demand, of any sum of money:—

	£ s. d.
Exc. £100 and not exc. £200	0 2 0
200	0 3 0
300	0 4 0
400	0 5 0
500	0 7 0
750	10 0 0
1000	15 0 0
1500	20 0 0
2000	25 0 0
3000	40 0 0
£4000 and upwards, 10s. per £1000.	

APPRENTICES' INDENTURES, AND ASSIGNMENTS OF THEM.

	£ s. d.
Where no money is paid	0 2 6
Under £30	1 0 0
For £30 and under £50	2 0 0
50	3 0 0
100	6 0 0
200	12 0 0
300	20 0 0
400	25 0 0
500	30 0 0
600	40 0 0
800	50 0 0
1000 and upwards	60 0 0

Contracts to serve as Artificers, Servants, Clerks, Mechanics, or Labourers, in the British Colonies are exempted from stamp duty.

PROTESTS.

On any bill or note where the stamp duty on same does not exceed 1s., the same duty as on the bill or note. On any other bill or note 1s. 0d. Of any other kind 1 0 Bill of lading 0 6 (Cannot be stamped after execution.) Charterparty 5 0 (Charterparty may be stamped within fourteen days after execution free of penalty; within one month, £10 penalty; after one month, cannot be stamped.)

APRIL.



ANGLING.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.		DURATION OF MOONLIGHT.										HIGH WATER AT				Day of Year.	
			Rises.	Souths after Noon.	Sets.	Rises. Morn.	Sets. Morn.	Before Sunrise.					Moon's Age.	After Sunset.					London Bridge.		Liverpool Dock.		
								O'Clock.						O'Clock.					Morn.	Aftern.	Morn.		Aftern.
			H. M.	M. S.	H. M.	H. M.	H. M.	2	3	4	5	6	7	8	9	10	H. M.	H. M.	H. M.	H. M.			
1	S	Day breaks 3h. 37m.	5 38	3 54	6 31	9 5	0 4										5 29	5 51	2 29	2 52	91		
2	S	5TH SUNDAY IN LENT	5 35	3 36	6 33	10 2	0 58										6 14	6 40	3 18	3 44	92		
3	M	Twilight ends 8h. 37m.	5 33	3 18	6 35	11 2	1 43										7 6	7 36	4 14	4 49	93		
4	Tu	Goldsmith died, 1774.	5 31	3 0	6 36	Aftern.	2 20										8 11	8 51	5 29	6 10	94		
5	W	Mean Temperature, 43 deg.	5 28	2 42	6 38	1 8	2 51										9 32	10 13	6 51	7 32	95		
6	Th	Length of day 13h. 14m.	5 26	2 25	6 40	2 11	3 19										10 54	11 29	8 7	8 39	96		
7	F	Cambridge Lent Term ends	5 24	2 8	6 41	3 15	3 41										—	0 1	9 6	9 29	97		
8	S	Oxford Lent Term ends	5 22	1 50	6 43	4 17	4 5										0 28	0 51	9 49	10 7	98		
9	S	PALM SUNDAY	5 20	1 34	6 45	5 19	4 27										1 11	1 29	10 25	10 40	99		
10	M	Day breaks 3h. 11m.	5 17	1 17	6 46	6 24	4 48										1 47	2 2	10 56	11 12	100		
11	Tu	Bonaparte abdicated, 1814	5 15	1 1	6 48	7 27	5 12										2 18	2 34	11 28	11 43	101		
12	W	Twilight ends 8h. 53m.	5 13	0 45	6 50	8 29	5 38										2 50	3 5	11 59	—	102		
13	Th	Maunday Thursday	5 11	0 29	6 51	9 31	6 8										3 21	3 37	0 15	0 29	103		
14	F	GOOD FRIDAY.	5 9	0 13	6 53	10 30	6 43										3 51	4 7	0 45	1 2	104		
15	S	Easter Term begins	5 6	before Noon.	6 55	11 25	7 24										4 24	4 39	1 17	1 34	105		
16	S	EASTER SUNDAY	5 4	0 16	6 56	Morn.	8 13										4 56	5 14	1 52	2 11	106		
17	M	Easter Monday	5 2	0 31	6 58	0 15	9 9										5 33	5 55	2 33	2 56	107		
18	Tu	Easter Tuesday	5 0	0 44	7 0	1 0	10 13										6 18	6 44	3 22	3 50	108		
19	W	Alphege. Melancthon d., 1560	4 58	0 58	7 1	1 37	11 22										7 12	7 46	4 24	5 3	109		
20	Th	Siege of Derry, 1699	4 56	1 11	7 3	2 12	Aftern.										8 25	9 8	5 46	6 25	110		
21	F	Cambridge Easter Term begins	4 54	1 23	7 5	2 41	1 53										9 47	10 25	7 3	7 40	111		
22	S	Royal Society founded, 1663	4 52	1 36	7 6	3 10	3 14										11 2	11 38	8 16	8 45	112		
23	S	LOW SUNDAY. St. George	4 50	1 47	7 8	3 38	4 35										—	0 7	9 12	9 35	113		
24	M	Brazil discovered, 1500	4 48	1 58	7 9	4 9	5 58										0 34	0 57	10 0	10 23	114		
25	Tu	St. Mark.	4 46	2 9	7 11	4 41	7 18										1 22	1 45	10 46	11 10	115		
26	W	Oxford Easter Term begins	4 44	2 19	7 13	5 16	8 35										2 8	2 32	11 32	11 56	116		
27	Th	French Army in Italy, 1859	4 42	2 29	7 14	6 1	9 45										2 54	3 18	—	0 18	117		
28	F	Mutiny of the Bounty, 1789	4 40	2 38	7 16	6 51	10 45										3 40	4 3	0 41	1 3	118		
29	S	Day breaks 2h. 12m.	4 38	2 47	7 18	7 48	11 36										4 25	4 47	1 25	1 46	119		
30	S	2ND SUND. AFT. EASTER	4 36	2 55	7 19	8 48	Morn.										5 8	5 30	2 8	2 31	120		



"THE SWING," BY W. L. THOMAS.—FROM "THE ILLUSTRATED LONDON NEWS."

Spring, the sweet spring
Is the year's pleasant king ;
Then blooms each thing,
Then maids dance in a ring ;
Cold doth not sting ;
The pretty birds do sing,
Cuckoo—jugge, jugge,
Pu we, to witta woo.

The Palm and May
Make country houses gay,
Lambs frisk and play,
The Shepherd pipes all day ;
And we hear aye
Birds tune this merry lay,
Cuckoo—jugge, jugge,
Pu we, to witta woo.

The fields breathe sweet,
The daisies kiss our feet,
Young lovers meet,
Old wives a sunning sit ;
In every street
There tunes our ears do greet,
Cuckoo—jugge, jugge,
Pu we, to witta woo.—OLD SONG.

FERNS AND BUTTERFLIES. MARCH AND APRIL.

DOES not the old window in our Plate suggest to us the possibility of finding in its niches and crannies, or on its crumbling surface, some of the beautiful lichens of which we spoke last month?

In company with the old-wall lichens, and disputing with them the possession of each weather-beaten and time-worn stone, we may expect to find the three ferns which adorn our Plate. *Asplenium trichomanes*, the common wall spleenwort, or maidenhair spleenwort. It is a pretty little tufted fern, generally from two to six inches high. It has a slender, purplish, black, and glossy stalk, and regularly disposed ovate pinnae forming the fronds. They are of a deep green colour, slightly crenated at the margin. The pinnae are attached to the rachis by a very short stalk forming the attenuation of a wedge-shaped base. When old the pinnae fall off, leaving the black, glossy hairlike stalks naked, mingling with the green fronds. Both this pretty little fern and its variety, *Asplenium viride*, are abundant on shady rocks and in old walls and buildings throughout Great Britain, Europe, Central and Russian Asia, in North and South America, and in Australia.

In the West of England, and especially in Wales, it is a common fern. In Germany there is a legend attached to a well near which this fern grows luxuriantly. A lady keeping tryst with her lover, he was suddenly by some evil spell changed into a wolf. In her terror she fled before him, and in her haste fell over a precipice, her beautiful hair becoming entangled in the bushes. Immediately on the spot a clear well sprang up, and her hair took root and grew into the lovely fern we now call "maidenhair spleenwort." The well is called Wolf's Spring; and after hearing the legend the traveller is expected to take with him as a relic a bunch of "maiden's hair." A tea or syrup made of the fronds of this fern has been recommended in pulmonary affections.

The *Asplenium ruta-muraria*—red-leaved spleenwort—is, according to Newman (a great authority on British ferns), "one of those plants which, like our half-domesticated birds, the sparrow, the swallow, and the martin, seem to have deserted their native wilds and to have taken up their residence amongst the habitations of man, for it is far less frequently found on the wild rock than on the walls which his hands have reared. It has densely-tufted, thick, dark green fronds, about two or three inches long. The stalk is more or less pinnately divided. The pinnae are alternate, having pinnules variable in form, sometimes long-stalked, wedge-shaped, toothed, or contracted into a roundish point above. The sori are linear, becoming united into broad patches when old. The whole form of the plant resembles the garden rue. This pretty plant grows luxuriantly on Arthur's Seat in Edinburgh, and about the Peak in Derbyshire. It is not very abundant in Scotland. It may almost be called the churchyard fern, for seldom do we visit any old place of this kind and wander among the ancient graves without seeing the pretty bright fronds of this beautiful fern springing from the resting-places of those who have gone before us, and reminding us of the new life which is to come when this shall have passed away. Inside the tower of Morristown Church, a few years since, a most luxuriant specimen of this fern. The ancient church stands at the edge of a lofty cliff, round the base of which the wild waves of the Atlantic surge and roar. The churchyard contains more than one monument to shipwrecked and drowned sailors. One is a boat turned upside down, in which the poor fellows had attempted to escape. Another has the broken oars formed into a rude cross—a remnant in themselves. Round about these sad memorials of "those that go down to the sea in ships" grew this little fern, mingling, as it were, the emblems of a new life with the symbols of hope for those that there lie at rest. These who live in London and are desirous of seeing this pretty fern for themselves need wander no further than Greenwich Park, where it flourishes abundantly on one of the walls surrounding the park, and nothing can be commoner than to see it on the brick walls of fruit gardens, particularly selecting the uppermost line of mortar, which may perhaps be protected by a coping of brick; this is ever a favourite station for cobwebs and wall rue.

Our next fern, the scaly spleenwort (*Ceterach officinalis*) is a downy, ever-green, pretty-looking fern, growing in tufts. It is readily distinguished from any other British plant. It varies very little in form, and the whole of its under surface is thickly clothed with brown scales which completely conceal the sori. The green of the upper surface contrasts prettily with the rust-coloured brown edge formed round the margin by the scales underneath. The outline is long and narrow, very deeply divided into rounded lobes standing in an oblique position towards the midrib. The thick texture of the fern renders the veining indistinct, and it can only be seen in the young fronds, which appear in May. The short, tough roots of this fern insinuate themselves into the crevices and cracks of old walls and ruins in rocky places, and especially in limestone districts in England and Ireland. On the old walls of churches it may often be found in company with the wall rue. It is to be seen on the walls of Jerusalem. At one time its medical reputation was very great, but, like many other such remedies, it has fallen into disuse with the progress of knowledge. It was formerly thought to be a very efficacious application to wounds and ulcers, and is extolled by Gerard in his "Herbal" for many excellencies. He, however, qualifies his praise in this way:—"But this is to be reckoned among the old wife's fables, and that also which Dioscorides tells of touching the gathering of spleenwort in the night, and other most vain things, which are found here and there scattered in old books; from which most of the later writers do not abstain, who many times fill up their pages with lies and frivolous toys, and by so doing do not a little deceive young students."

The common name spleenwort takes its origin in a curious story—that in Cerito there is a river which divides two portions of land, the ceterach growing abundantly on one side the stream and not on the other. On the side where the fern grows the pigs are said to have no spleen, but on the other side they are perfect pigs. Hence the name spleenwort or *Asplenium*. To this day Arabian and other Eastern writers believe in the virtues of this fern in diseases of the liver and spleen.

We may suppose that all who admire ferns in their native haunts may desire to possess them either in a living, growing form in some shady garden nook, or in a closed Ward's case or window, or even dried "pictures of what they were." In a later and less productive month of the year we will go into some details of these latter modes of preserving ferns; and now, while the weather tempts one out of doors into the field and the garden, we will say a little about outdoor cultivation of ferns. To those who are fortunate enough to live away from the smoke and noise of great cities, an open-air fernery will afford much delight. To such we would say, choose a sheltered and shady situation, if under the defence of a wall so much the better, and one looking north or west. Make up a raised bed with light soil largely mixed with rough, porous stones. Front it with rock-work wherein to fix the

smaller or wall kinds, the larger and more feathery being placed behind in the bed itself. Old roots of trees have a very pretty effect in ferneries, and we greatly prefer, if rockwork be used, to see broken pieces of natural stone rather than the refuse of brickmaking or iron-smelting furnaces, as is often the case. Plant your ferns not too closely together, and remember that those which have creeping roots will extend themselves and reappear in adjacent spots. Water before planting, and from time to time, as needed, but be careful that there is the means of drainage, lest your bed become damp and sour, for although some few ferns like a marshy soil, and a few others can endure it, to the majority it is injurious if not fatal. Autumn is the best season for transplanting ferns from their wayside homes. In the winter many will have died down and be hardly discernible except to a practised eye. *Asplenium trichomanes* requires to be planted among the upper and dry portions of rockwork. From the experiments of Mr. Wollaston, it was found that a soil of sandy loam best ensured its success, as it requires less moisture than most other ferns; in fact, the crown, or centre of growth, should never be wetted. Those who desire to domesticate the wall rue, *A. ruta-muraria*, will find it difficult to remove it from its native haunts, as its wiry roots seem to intersect the bricks or pieces of rock on which it grows. It should only be removed with a portion of the wall on which it has fixed itself, and then surrounded with brick rubbish, mortar, and sandy peat. In this way it will often thrive if protected from the sun and cold winds. Mr. Newman says, "it seems to disapprove of the attentions of the gardener, to loathe his waterings and syringings, to despise his composts, and utterly to eschew the confinement of a bell-glass." Out of doors, the wall rue succeeds best on a garden wall. Indoors it must be kept in a well-ventilated greenhouse, and planted in a small pot filled with broken brick and old, crumbled mortar; water should be supplied very sparingly. Mr. Newman observes that the want of success which so often accompanies the attempt to cultivate these little ferns arises from the injuries inflicted on their tender radicles and caudices in removing them; it is best, if possible, to remove the substance of the brick or rock itself on which they may be growing. To grow ceterach with any success, its natural habits must be attended to as much as possible. It does best in the interstices of a wall, where the mortar has begun to crumble. In pot-culture, the soil must be prepared with great care—old crumbled mortar, peat earth, and limestone should be well mixed together and placed in the shade. It is generally supposed that it is impossible to grow this fern in the atmosphere of London; yet Mr. Sowerby tells us that the best specimen he ever had flourished in the nook of an old wall in a back area in Hatton-garden for several years, and "may be there still, unless eradicated by repair; sun never reached it, and ancient mortar which, constantly moist, had somewhat the consistence of paste, probably agreed with its constitution, a very necessary point to be studied in planting, as, when left to its own selection or in a wild state, it seems universally to prefer a calcareous habitat." Whether planted in the open fernery or grown in pots, great care must be exercised as to drainage, and in the latter case especially to avoid wetting the fronds in watering.

The insects that make their appearance this month are principally those personally well-known to even the least observant of nature's students, yet many interesting particulars have to be learned even of the ant and the bee, both of whom are very busy at this season of the year. The bees are divided into two kinds, the social and the solitary bees. The social bees consist of the genus *Bombus*, humble bee, and *Apis*, hive bee. The first of these make their nests in various situations, some digging underground, others selecting a crevice in a heap of stones, whilst another places its nest on the surface of the ground, covering it with moss or dried leaves. The hive bee, *Apis*, would require a chapter to itself to describe all its curious and interesting ways; but as we can here only mention it as one of the insects brought into activity by the first warm rays of the spring sunshine, we must refer our readers to such works as those of Messrs. Kirby and Spence for delightful accounts of this interesting little creature. Then there are the ants belonging to the family *Formicidae*, with their enrious domestic economy and unvaried and patient industry, which seems sometimes more like intelligence than instinct. The Aphides, too, or plant lice, those tiny green creatures that every one who has matured a favourite plant knows and dislikes, begin to stir themselves at this time, and require the watchful care of the gardener to destroy. The Lepidoptera, or butterflies, begin to appear in March and April. The brimstone butterfly is one of the earliest, and the early white butterflies may be seen flitting about, sipping the sweets of the few flowers now in bloom. The less delicate but more brilliant beetle attracts our attention as it runs swiftly from our path, or flies heavily during a warm evening, with its peculiar humming sound. The elegant dragon-fly emerges from the watery bed in which it has passed the first stage of its existence, and hovers over the lake or pond it has so lately quitted as if loth to change its abode. The French call the dragon-flies "demoiselles," a name far more applicable to their harmless and beautiful nature than our inappropriate ones of horse-stinger, dragon-fly, &c. The wall butterfly, *Hipparchia megara*, represented in our Plate, may often be seen during these early months of the year. The anterior wings are orange, inclining to brown, with the hinder margin and several transverse bands of dark brown, each wing with a large ocellus towards the tip, having a black iris and white pupil. The hinder wings are dark brown, with two transverse bands that crest the margin, having a row of ocelli. Beneath, the upper wings are pale, with the brown bands faintly marked, the ocellus being larger; the under pair of an ash grey, with two undulating brown lines; they have also a series of ocelli, and a waved band of pale yellow. To those who preserve and keep insects we would recommend the capture of the first perfect specimens of the year, lest the weather should prove unfavourable and the opportunity be lost. The easiest way to kill the Lepidoptera, or butterflies, is by a pressure of the finger and thumb on the thorax, which is generally sufficient, but sometimes, to the great weakness of the humane entomologist, they will be found alive some time after. Other methods of killing are recommended; but it is certainly one great drawback to the formation of collections of this kind that the difficulty is so great in entirely killing the insects without injuring their plumage. It is certain, however, that the amount of pain experienced by these little creatures is very slight, and competent naturalists are of opinion that the size of the brain of any animal determines in a great measure its sensibility to pain. The nervous system of insects, too, is of a very different construction to that of the higher animals, and does not depend on one great centre—the brain—as in them. This consideration may diminish the objection that every lover of nature will feel to anything that may appear cruel or wanton in the sacrifice of so many little lives in order to perfect his knowledge of their forms and structure. When the insect is killed it must be prepared for the cabinet; a pin (short white) must be run into the thorax and firmly placed through the cork, which should line the box or drawer. Two of each specimen should, if possible, be procured, so as to exhibit the upper and under surface.

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

LIST OF THE PRINCIPAL BANKERS.

LONDON.

Agra and Masterman's Bank (Limited), 35, Nicholas-lane, E.C.
 Albion Bank (Limited), Moorgate-street, E.C.
 Alliance Bank of London and Liverpool (Limited), 5, Lothbury, E.C.
 Bank of Australasia, 4, Threadneedle-street, E.C.
 Bank of British North America, 7, St. Helen's-place, E.C.
 Bank of England, Threadneedle-street, E.C., and Burlington-gardens, W.
 Bank of Egypt, 26, Old Broad-street, E.C.
 Bank of Hindustan, Cornhill, E.C.
 Bank of London, 52, Threadneedle-street, E.C., and 450, West Strand, W.C.
 Bank of New South Wales, 37, Cannon-street, E.C.
 Bank of Victoria, 3, Threadneedle-street, E.C.
 Barclay, Bevan, and Co., 54, Lombard-street, E.C.
 Barnett, Hoares, and Co., 62, Lombard-street, E.C.
 Biddulph, Cocks, and Co., 43, Charing-cross, S.W.
 Biggerstaff, W. and J., 63, West Smithfield, E.C., and 6, Metropolitan Cattle Market, N.W.
 Bosanquet, Franks, and Co., 73, Lombard-street, E.C.
 Brown, Janson, and Co., 32, Abchurch-lane, E.C.
 City Bank, Threadneedle-street, corner of Finch-lane, E.C.
 Call, Marten, and Co., 25, Old Bond-street, W.
 Chartered Mercantile Bank of India, London, and China, 52, Threadneedle-street, E.C.
 Child and Co., 1, Fleet-street, E.C.
 Colonial Bank, 13, Bishopsgate-street Within, E.C.
 Commercial Bank of India, 4, Princes-street, E.C.
 Commercial Banking Company of Sydney, 35, Cornhill, E.C.
 Consolidated Bank (Limited), 76, Lombard-street, E.C.
 Continental Bank (Limited), 67, Cornhill, E.C.
 Coutts and Co., 59, Strand, W.C.
 Cunliffe, Roger, Son, and Co., 24, Bucklersbury, E.C.
 Cunliffes and Co., 24, Lombard-street, E.C.
 Chartered Bank of India, Australasia, and China, 20, Threadneedle-street, E.C.
 Dimsdale, Drewett, and Co., 50, Cornhill, E.C.
 Drummond, Messrs., 49, Charing-cross, S.W.
 East London Bank, 124, Fenchurch-street, E.C.
 English and Swedish Bank, 103, Gresham House, E.C.
 English, Scottish, and Australian Chartered Bank, 73, Cornhill, E.C.
 European Bank, 35, King William-street, E.C.
 Fullers, Banbury, and Co., 77, Lombard-street, E.C.
 Glyn, Mills, and Co., 67, Lombard-street, E.C.
 Goslings and Sharpe, 19, Fleet-street, E.C.
 Hanburys and Lloyds, 60, Lombard-street, E.C.
 Herries, Farquhar, and Co., 16, St. James-street, S.W.
 Heywood, Kennards, and Co., 4, Lombard-street, E.C.
 Hill and Sons, 17, West Smithfield, E.C., and 2, Metropolitan Cattle Market, N.W.
 Hoares, Messrs., 37, Fleet-street, E.C.
 Hopkinson and Co., 3, Regent-street, S.W.
 Imperial Bank, 6, Lothbury, E.C.
 Imperial Ottoman Bank, Bank-buildings, Princes-street, E.C.
 Ionian Bank, 6, Great Winchester-street, City, E.C.
 Johnston, H. and I., and Co., 28, Cannon-street, E.C.
 Lacy and Son, 60, West Smithfield, E.C., and 11, Metropolitan Cattle Market, N.W.
 London Chartered Bank of Australasia, 17, Cannon-street, E.C.
 London and County Bank, 21, Lombard-street, E.C.; Albert-gate, S.W.; 6, Berkeley-place, Edgware-road, W.; 441, Oxford-street, W.; 21, Hanover-square, W.; 19, High-street, Islington, N.; High-street, Kensington, W.; James-street, Covent Garden, W.C.; Bank-buildings, 187, Shoreditch, N.E., and Westbourne Grove, Bayswater, W.
 London Joint Stock Bank, 5, Princes-street, Mansion House, E.C., and 69, Pall-mall, S.W.
 London and Westminster, Lothbury, E.C.; 1, St. James's-square, S.W.; 213, High-Holborn, W.C.; 3, Wellington-street, Borough, S.E.; 87, White-chapel, High-street, E.; 4, Stratford-place, W., and 217, Strand, W.C.
 London and South African Bank, 10, King William-street, E.C.
 London Bank of Scotland, 24, Old Jewry, E.C.
 Martin and Co., 68, Lombard-street, E.C.
 Metropolitan and Provincial Bank, 75, Cornhill, E.C.
 National Bank, 13, Old Broad-street, E.C., and Gloucester-gardens, Bayswater, W.
 National Provincial Bank of England, 112, Bishopsgate-street Within, E.C.
 New Zealand Bank, 38, New Broad-street, E.C.
 North Western Bank of India, Gresham House, Old Broad-street, E.C.
 Oriental Bank Corporation, South Sea House, E.C.
 Olding, Osborne, and Co., 29, Clements-lane, E.C.
 Praeds and Co., 189, Fleet-street, E.C.
 Prescott, Grote, and Co., 62, Threadneedle-street, E.C.
 Price, Marryatt, and Co., 3, King William-street, E.C.
 Provincial Bank of Ireland, 42, Old Broad-street, E.C.
 Puget, Bainbridges, and Co., 12, St. Paul's Churchyard, E.C.
 Ransom, Bonverie, and Co., 1, Pall-mall East, S.W.
 Roberts, Lubbock, and Co., 15, Lombard-street, E.C.
 Sainde, Punjaub, and Delhi Bank (Limited), 80, King William-street, E.C.
 Scott and Co., 1, Cavendish-square, W.
 Smith, Elder, and Co., 45, Pall-mall, S.W.
 Smith, Payne, and Smiths, 1, Lombard-street, E.C.
 South Australian Banking Company, 54, Old Broad-street, E.C.
 Spielman, A., and Co., 79, Lombard-street, E.C.
 Spooner, Attwoods, and Co., 27, Gracechurch-street, E.C.
 Standard Bank of British South Africa, 90, Cannon-street, E.C.
 Stevenson, Salt, and Sons, 20, Lombard-street, E.C.
 Stride, J. and W. S., 41, West Smithfield, E.C., and 8, Metropolitan Cattle Market, N.W.
 Twining and Co., 215, Strand, W.C.
 Union Bank of Australia, 38, Old Broad-street, E.C.
 Union Bank of Ireland (Limited), Moorgate-street, E.C.
 Union Bank of London, 2, Princes-street, Mansion House, E.C.; Argyll-place, Regent-street, W.; 4, Pall-mall East, S.W., and 200, Fleet-street, E.C.
 Williams, Deacon, and Co., 20, Birchin-lane, E.C.
 Willis, Percival, and Co., 76, Lombard-street, E.C.

LIVERPOOL.

Moss and Co. Barclay and Co.
 Israel Bamed and Co. Prescott and Co.
 Heywood, Sons' and Co. Heywood and Co.
 J. K. Kneeshaw Curries and Co.

DRAWN ON IN LONDON.

Bank of Liverpool Glyn and Co.
 Branch Bank of England Bank of England.
 Liverpool Commercial Banking Company Williams and Co.
 Manchester and Liverpool Discount Bank. Com. Smith and Co.
 North and South Wales Bank London and Westminster Bank.
 Royal Bank of Liverpool London Joint Stock Bank.
 Union Bank of London.
 Edwin L. Samuel Samuel and Co.
 Bank of London.
 Barnett and Co.
 Liverpool Union Bank
 National Bank of Liverpool

MANCHESTER.

James Sewell Union Bank of London.
 Bank of Manchester London Joint Stock Bank.
 Cunliffes, Brooks, and Co. Cunliffes and Co.
 Heywood and Co. Agra and Masterman.
 Loyd, Entwistle, and Co. London and Westminster.
 Branch Bank of England Bank of England.
 Manchester and County Bank Union Bank of London.
 Manchester and Liverpool Disc't. Bank. Comp. Smith and Co.
 Manchester and Salford Bank Williams and Co.
 National Provincial Bank of England London and Westminster Bank.
 Union Bank of Manchester Glyn and Co.

BIRMINGHAM.

Lloyds and Co. Hanburys and Lloyds.
 Attwoods and Co. Spooner and Co.
 J. Lewis Mollit and Co. Roberts and Co.
 Birmingham Banking Company Glyn and Co.
 Birmingham and Midland Bank Union Bank of London.
 Birmingham Town and District Banking Company Barclay and Co., and Bank of London.
 Branch Bank of England Bank of England.
 National Provincial Bank of England London and Westminster Bank.

DUBLIN.

Ball and Co. Ransom and Co.
 Boyle, Low, Pim, and Co. Williams and Co.
 Robert Gray and Co. Glyn and Co.
 J. B. Kennedy and Co. Glyn and Co.
 Provincial Bank of Ireland Spooner and Co.
 D. La Touch and Co. Puget and Co.
 Hibernian Joint Stock Banking Company Barnett and Co.
 Bank of Ireland Coutts and Co., Bk. of England.
 National Bank Head Office, 13, Old Broad-st.
 Royal Bank of Ireland London and Westminster Bank.
 Ulster Banking Company (London and Westminster Bank.
 Prescott and Co.

EDINBURGH.

Bank of Scotland Coutts and Co., Smith and Co.,
 and Bank of England.
 City of Glasgow Bank London Joint Stock Bank.
 Commercial Bank of Scotland Coutts and Co.
 British Linen Company Smith and Co., and Bank of
 England.
 Union Bank of Scotland Barclay and Co., Coutts and
 Co., and Glyn and Co.
 Clydesdale Banking Company Barnett and Co.
 London and Westminster Bank.
 Royal Bank of Scotland Bank of England and Coutts
 and Co.
 National Bank of Scotland Union Bank of London,
 Coutts and Co., and Glyn
 and Co.

GLASGOW.

British Linen Company Smith, Payne and Co.
 City of Glasgow Bank London Joint Stock Bank.
 Clydesdale Bank Company London and Westminster Bank.
 National Bank of Scotland Glyn and Co.
 Royal Bank of Scotland Coutts and Co., and Bank of
 England.
 Union Bank of Scotland Glyn and Co.
 North British Bank Union Bank of London.

BRISTOL.

West of England and South Wales Disc't. Bank Glyn and Co.
 Sir William Miles and Co. Barnett and Co.
 Baillie, Cave, and Co. Prescott and Co.
 Stuckey's Banking Company Roberts and Co.
 National Provincial Bank of England London and Westminster Bank.
 Branch Bank of England Bank of England.

BRADFORD.

Bradford Banking Company London and Westminster.
 Harris and Co. Barnett and Co.
 Bradford Commercial Banking Company Glyn and Co.
 Yorkshire Banking Company Williams and Co.

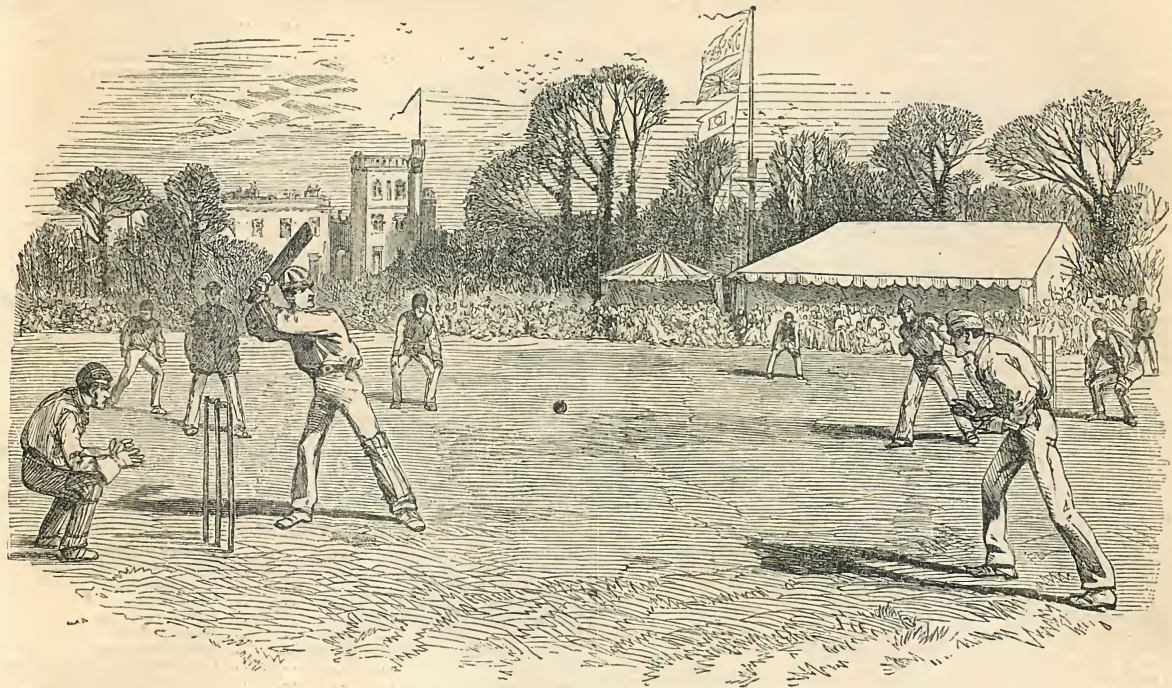
LEEDS.

Beckett and Co. Glyn and Co.
 Wm. Williams, Brown, and Co. Brown, Jansen, and Co.
 Leeds Banking Company Smith and Co.
 Branch Bank of England Bank of England.
 Yorkshire Banking Company Williams and Co.

HULL.

Hull Banking Company Barclay and Co.
 Branch Bank of England Bank of England.
 Peases, Hoare, and Pease Glyn and Co.
 Smith, Brothers, and Co. Smith and Co.
 Yorkshire Banking Company Williams and Co.

MAY.



CRICKET.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.		DURATION OF MOONLIGHT.										HIGH WATER AT				Day of Year.			
			Rises.	Souths before Noon.		Sets.	Rises. Morn.	Sets. Morn.		Before Sunrise.					Moon's Age.	After Sunset.					London Bridge.		Liverpool Dock.		
				H. M.	M. S.			H. M.	H. M.	H. M.	O'Clock.					O'Clock.					Morn.		Aftern.	Morn.	Aftern.
1	M	<i>St. Philip and St. James</i>	4 34	3	37	21	9 52	0 18							6						5 53	6 18	2 56	3 22	121
2	Tu	<i>Invention of the Cross</i>	4 32	3	107	23	10 58	0 52							7						6 44	7 11	3 49	4 20	122
3	W	Day breaks 1h. 56m.	4 30	3	177	24	Aftern.	1 21							8						7 42	8 16	4 54	5 31	123
4	Th	Twilight ends 10h. 3m.	4 28	3	237	26	1 5	1 46							9						8 53	9 29	6 7	6 41	124
5	F	Hamburg burnt, 1842	4 27	3	287	27	2 7	2 10							10						10 3	10 38	7 16	7 51	125
6	S	<i>St. John Evangelist</i>	4 25	3	337	29	3 10	2 32							11						11 13	11 43	8 21	8 47	126
7	S	3RD SUND. AFT. EASTER	4 23	3	387	31	4 13	2 54							12						—	0 9	9 10	9 29	127
8	M	Length of day 15h. 11m.	4 21	3	427	32	5 17	3 15							13						0 32	0 51	9 49	10 9	128
9	Tu	Schiller died, 1805	4 20	3	457	34	6 21	3 41							14						1 11	1 31	10 26	10 42	129
10	W	Battle of Lodi, 1796	4 18	3	487	35	7 23	4 9							15						1 48	2 4	10 58	11 15	130
11	Th	Easter Term ends	4 17	3	507	37	8 24	4 42							16						2 20	2 37	11 34	11 50	131
12	F	Day breaks 1h. 21m.	4 15	3	527	38	9 22	5 23							17						2 56	3 12	—	0 7	132
13	S	Twilight ends 10h. 41m.	4 13	3	537	40	10 14	6 10							18						3 29	3 45	0 23	0 40	133
14	S	4TH SUND. AFT. EASTER	4 12	3	537	41	11 0	7 4							19						4 2	4 21	0 59	1 18	134
15	M	Length of day 15h. 33m.	4 10	3	537	43	11 40	8 4							20						4 40	4 59	1 37	1 58	135
16	Tu	Battle of Albuera, 1811	4 9	3	527	44	Morn.	9 12							21						5 20	5 40	2 18	2 41	136
17	W	Jenner born, 1749	4 7	3	517	46	0 15	10 24							22						6 3	6 30	3 8	3 35	137
18	Th	Boswell died, 1795	4 6	3	497	47	0 44	11 40							23						6 57	7 27	4 5	4 40	138
19	F	Anne Boleyn beheaded, 1536	4 5	3	477	49	1 12	Aftern.							24						8 2	8 41	5 19	5 58	139
20	S	Columbus died, 1506	4 3	3	447	50	1 40	2 13							25						9 20	9 56	6 34	7 11	140
21	S	ROGATION SUNDAY	4 2	3	407	52	2 7	3 33							26						10 33	11 8	7 46	8 18	141
22	M	Cambridge Term divides	4 1	3	367	53	2 37	4 52							27						11 40	—	8 47	9 14	142
23	Tu	Sir J. Franklin's departure, 1845	3 59	3	317	54	3 12	6 10							28						0 9	0 36	9 41	10 7	143
24	W	Birth of Queen Victoria, 1819	3 58	3	267	56	3 50	7 24							29						1 3	1 29	10 32	10 55	144
25	Th	<i>Ascension Day.</i> Holy Thurs. Trinity Term begins	3 57	3	207	57	4 37	8 29							1						1 54	2 17	11 18	11 42	145
26	F	Mean Temperature, 55 deg.	3 56	3	147	58	5 31	9 25							2						2 40	3 4	—	0 4	146
27	S	Hab. Corp. Act passed, 1679	3 55	3	87	59	6 32	10 13							3						3 26	3 47	0 25	0 45	147
28	S	SUNDAY AFT. ASCENSION	3 54	3	08	1	7 34	10 52							4						4 7	4 29	1 7	1 29	148
29	M	No real night	3 53	2	538	2	8 41	11 22							5						4 51	5 12	1 50	2 12	149
30	Tu	Joan of Arc burnt, 1431	3 52	2	458	3	9 48	11 49							6						5 34	5 57	2 35	2 58	150
31	W	Dr. Chalmers died, 1847	3 51	2	368	4	10 51	Morn.							7						6 20	6 45	3 23	3 47	151



"THE YOUNG SHIPWRIGHT." BY L. DUNCA. —FROM "THE ILLUSTRATED LONDON NEWS."

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

PUBLIC ACTS OF PARLIAMENT OF THE LAST SESSION. PASSED IN THE 27TH AND 28TH YEARS OF HER MAJESTY'S REIGN.

* * * The figure before each act denotes the chapter, and the date after each act records the exact time of its passing.

1. An act to authorize the inclosure of certain lands, in pursuance of a report of the Inclosure Commissioners for England and Wales. March 18. This act incloses Wooler and Humbleton, Ford Common, West Newton Common, Ayle Common, and Earle and Wooler Common, Northumberland; Yearsley Moor and Gammersgill, Yorkshire; Ennerdale and Kirkland Fell, Cumberland; Nantwich Barony, Cheshire; Sandhurst, Norton, and Wootton, Gloucestershire; Beddingfield, Suffolk; Slindon, Sussex; Marston-Maisey, Wilts; Reporry Common, Cornwall; Lutton, Northamptonshire; Blackwell and Berrington, Worcestershire; Briston, Norfolk; Norton, Radnorshire; and Bucknall, Lincolnshire.
2. An act to enable the Right Hon. Sir John Laird Mair Lawrence to receive the full benefit of the salary of Governor-General of India, notwithstanding his being in receipt of an annuity of £2000 per annum granted to him by the Hon. East India Company. March 18.
3. The usual annual act for punishing mutiny and desertion, and for the better payment of the Army and their quarters. March 18.
4. The usual annual act for the regulation of her Majesty's Royal marine forces while on shore. March 18.
5. An act to apply the sum of £584,650 out of the Consolidated Fund to the service of the year ending March 31, 1864. March 18.
6. An act to apply the sum of £4,500,000 out of the Consolidated Fund to the service of the year 1864. March 18.
7. An act to amend the law relating to bills of exchange and promissory notes in Ireland. April 28. By this act public notaries in Ireland are no longer required to keep their offices open from six p.m. to nine o'clock in the evening; nor are they required to attend after six p.m. to receive payment of any bill or note.
8. An act to amend the laws relating to conveyancers, special plunders, and draughtsmen in equity practising in Ireland. April 28.
9. An act to allow the making of malt duty free, to be used in feeding animals. April 28.
10. An act to continue for a further period certain provisions of the Union Relief Aid Acts. April 28.
11. An act to apply the sum of £15,000,000 out of the Consolidated Fund to the service of the year 1864. April 28.
12. An act to amend the laws relating to the warehousing of British spirits. April 28.
13. An act to further extend to May 17, 1866, the time for making enrolments under the act 24 and 25 Vic., c. 9, intituled, "An Act to amend the Law relating to the Conveyance of Lands for Charitable Uses," and otherwise to amend the said law. May 13.
14. An act to amend certain provisional orders under 24 and 25 Vic., c. 133, "The Land Drainage Act, 1861." May 13.
15. An act for making better and further provision for the most efficient dispatch of business in the High Court of Chancery. May 13.
16. An act to confirm the appointment of Henry Pendock St. George Tucker, Esq., as one of the judges of her Majesty's High Court at Bombay, and to establish the validity of certain proceedings therein. May 13.
17. An act for the abolition of vestry cess in Ireland, and for other purposes relating thereto. May 13.
18. An act to grant certain duties of customs and inland revenue. May 13.
19. An act to enable joint-stock companies carrying on business in foreign countries to have official seals to be used in such countries. May 13.
20. An act to remove certain restrictions on the negotiation of promissory notes and bills of exchange under a limited sum in Ireland. May 13. This act repeals so much of the 8 and 9 Vic., c. 37, as prohibits or restrains the negotiation in Ireland of notes and bills of exchange under £5.
21. An act to indemnify certain persons from any penal consequences which they may have incurred by sitting and voting as members of the House of Commons while holding the office of Under Secretary of State. June 23.
22. An act to amend the laws which regulate the registration of Parliamentary voters in counties in Ireland. June 23.
23. An act to repeal enactments relating to naval prize and matters connected therewith or with the discipline or management of the Navy. June 23.
24. An act to provide for the appointment, duties, and remuneration of agents for ships of war, and for the distribution of salvage, bounty, prize, and other money among the officers and crew thereof. June 23.
25. An act for regulating naval prize of war. June 23.
26. An act to confirm certain provisional orders under the Local Government Act, 1858, relating to the districts of Southampton, Brighton, Hexham, Oswaldtwistle, Bolton, Ashford, Oswestry, Fareham, West Cowes, and Wilton. June 23.
27. An act for regulating the proving and sale of chain-cables and anchors. June 23.
28. An act to amend the Common Law Procedure (Ireland) Act, 1853, relating to jurors and juries in the county of Cork. June 24.
29. An act to amend the act 3 and 4 Vic., c. 54, for making further provision for the confinement and maintenance of insane prisoners. June 23.
30. An act to provide for the alteration of the circuits of the Court of Justiciary in Scotland, and for holding additional circuit courts. June 23.
31. An act to settle an annuity on Mary Louisa, Countess of Elgin and Kincardine, in consideration of the distinguished services performed by her husband, the late James, Earl of Elgin and Kincardine. June 30.
32. An act to enable certain banking co-partnerships which shall discontinue the issue of their own bank notes to sue and be sued by their public officer. June 30.
33. An act to facilitate the commutation and sale of certain vicarage tithes in Scotland. June 30.
34. An act for amending the law relating to seats in the House of Commons of persons holding certain public offices. June 30.
35. An act for more effectually regulating the sale of beer in Ireland. June 30.
36. An act to amend the law relative to the payment of the shares of prize and other money belonging to the deceased officers and soldiers of her Majesty's land forces. June 30.
37. An act to amend and extend the act for the regulation of chimney-sweepers. June 30. By this act a chimney-sweeper shall not, under penalty of fine or imprisonment, employ, in his trade, children under ten years of age, nor shall he bring into any house where he enters to clean chimneys any persons in his employment under sixteen years of age.
38. An act to facilitate the redemption of chief rents in Ireland. June 30.
39. An act to amend the Union Assessment Committee Act (1862). July 14.
40. An act for authorizing the relinquishment in favour of the King of the Hellenes of certain money payable in respect of the Greek loan. July 14.
41. An act for confirming a scheme of the Charity Commissioners for the charity called "The Free Grammar School" in the city of Coventry. July 14.
42. An act to provide for superannuation allowances to officers of unions and parishes. July 14.
43. An act to grant additional facilities for the purchase of small Government annuities, and for assuring payments of money on death. July 14.
44. An act to amend (as to orders of protection of property of wife deserted by her husband) the act relating to divorce and matrimonial causes in England, the 20 and 21 Vic., c. 85. July 14.
45. An act to further amend the Settled Estates Act of 1856, the 19 and 20 Vic., c. 120. July 14.
46. An act to provide for the investment and appropriation of all moneys received by the Commissioners for the Redemption of the National Debt on account of deferred life annuities and payments to be made on death. July 14.
47. An act to amend the penal servitude acts (as to length of sentences of penal servitude, punishment in convict prisons, and as to convicts, holders of licenses—*vulgo*, tickets of leave). July 25.
48. An act for the extension of the factory acts. July 25.
49. An act to indemnify such persons in the United Kingdom as have omitted to qualify themselves for offices and employments, and to extend the time limited for those purposes respectively. July 25.
50. An act to amend an act, the 25 Vic., c. 7, to provide for the registration and transfer of Indian Stocks at the Bank of Ireland, and for the mutual transfer of such stocks from and to the Banks of England and Ireland respectively. July 25.
51. An act to vest the site of the India Office in her Majesty for the service of the Government of India. July 25.
52. An act to amend the law relating to the Valuation of Rateable Property in Ireland. July 25.
53. An act to make provision for uniformity of process in summary criminal prosecutions and prosecutions for penalties in the inferior courts in Scotland. July 25.
54. An act for the union of the Diocesan Courts and Registries in Ireland; for the regulation of the mode of procedure therein, and also in the Provincial Courts of Armagh and Dublin; and for appeals therefrom. July 25.
55. An act for the better regulation of street music within the metropolitan police district. July 25. By this useful and long-wanted statute it is, in the first section, enacted that "any householder within the metropolitan police district, personally, or by his servant, or by any police constable, may require any street musician or street singer to depart from the neighbourhood of the house of such householder, on account of the illness, or on account of the interruption of the ordinary occupations or pursuits of any inmate of such house, or for any other reasonable or sufficient cause; and every person who shall sound or play upon any musical instrument, or shall sing in any thoroughfare or public place, near any such house after being so required to depart, shall be liable to a penalty of not more than forty shillings, or, in the discretion of the magistrate before whom he shall be convicted, may be imprisoned for any time not more than three days; and it shall be lawful for any constable belonging to the Metropolitan Police Force to take into custody, without warrant, any person who shall offend as aforesaid."
56. An act for granting her Majesty certain stamp duties, and to amend the laws relating to the Inland Revenue. July 25.
57. An act to make provision respecting the acquisition of lands required by the Admiralty for the public service, and respecting the use and disposition thereof and the execution of public works thereon. July 25.
58. An act for confirming a provisional order concerning pilotage made by the Board of Trade under the Merchant Shipping Act Amendment Act, 1862, relating to Hartlepool. July 25.
59. An act to continue the Deputy Commissioners in Lunacy in Scotland, and to make further provision for the salaries of the Deputy Commissioners, Secretary, and Clerk of the General Board of Lunacy in Scotland. July 25.
60. An act to enable her Majesty to grant a lease of 999 years of the building known as the College of Physicians, in Pall-mall East. July 25.
61. An act for empowering the Commissioners of the Treasury to guarantee, and the Commissioners for the Reduction of the National Debt to advance, the sums authorised to be borrowed for the embankment of the Thames and improvement of the metropolis, and for other purposes connected therewith. July 25.
62. An act for amending the Isle of Man Harbours Act, 1863. July 25.
63. An act to suspend the making of lists and the ballots for the militia of the United Kingdom. July 25.
64. An act for further regulating the closing of public-houses and refreshment houses within the Metropolitan Police district, the city of London, certain corporate boroughs, and other places. July 25. By this act public-houses, and refreshment-houses in the Metropolitan Police district and the city of London are to be closed between the hours of one and four o'clock in the morning. The act may be adopted by corporate boroughs and other places.
65. An act for amending the law relating to the Removal of Clerks of the Peace. July 25.
66. An act to authorise the inclosure of certain lands, in pursuance of a special report of the Inclosure Commissioners. July 25. This act incloses Faddley, Cheshire; Shiplake, Oxon; Dunster Salt Marsh, Somerset; Hartley-burn, Rochester Common, and Lambley, Northumberland; Ruffside, in the county of Durham; Hillbeck-Intake, Westmorland; Billingsford-Cow-common, Norfolk; Rudford, Gloucestershire; Barming Heath, Kent; Great Gidding, Huntingdonshire; Whitton, Radnorshire; Eversley, Havant, Avon-commons, and Ashley Heath, Hants; Leake, Yorkshire; Greystone Heath and Doc Group, Lancashire; Eltisley, Cambridgeshire; Haydon-common, Dorsetshire; Siddals-close and Chequers-close, Derbyshire; Rose Ash and Combmartin, Devonshire; and Rugeley, Staffordshire.
67. An act to amend the law in certain cases relating to trespasses in pursuit of game. July 25.
68. An act to amend the local government act of 1858, so far as it applies to Oxford. July 25.
69. An act to defray the charge of the pay, clothing, and contingent and other expenses of the disembodied militia in Great Britain and Ireland; to grant allowances in certain cases to subaltern officers, adjutants, paymasters, quartermasters, surgeons, assistant surgeons, and surgeons' mates in the militia; and to authorize the employment of the non-commissioned officers. July 25.
70. An act to substitute fixed instead of fluctuating incomes for members of certain cathedral minor corporations. July 25.
71. An act for amending acts relating to railways in Ireland. July 25.

72. An act to explain provisions in the acts for the improvement and drainage of lands in Ireland. July 25.
 73. Consolidated Fund; appropriation therefrom of the sums granted by Parliament for the service of 1864. July 29.
 74. An act for raising by Exchequer bonds £1,600,000 for the service of 1864. July 29.
 75. An act to amend the law relating to turnpike-road nuisances, and to continue certain turnpike acts till Nov. 1, 1865, and no longer, unless Parliament in the mean time continue the same.
 76. Registration of Deeds (Ireland) Amendment Act, substituting stamps instead of fees. July 29.
 77. An act for repealing and in part re-enacting acts of Parliament relating to the Ionian States. July 29.
 78. An act relating to the signature by machinery of Irish bank-notes, &c. July 29.
 79. An act relating to turnpike trusts arrangement. July 29.
 80. Criminal Justice Act, 1855, extension to Romney Marsh and the Cinque Ports. July 29.
 81. An act relating to the archiepiscopal revenues of the See of Armagh. July 29.
 82. An act for guaranteeing a loan for New Zealand. July 29.
 83. Local Government Supplemental Act. July 29.
 84. An act for continuing certain expiring acts. July 29.
 85. An act for the prevention of contagious diseases at certain naval and military stations. July 29.
 86. An act relating to bank post bills in Ireland. July 29.
 87. An act relating to corn accounts and returns. July 29.
 88. An act for regulating the traffic over Westminster Bridge. July 29.
 89. An act to amend the Defence Act. July 29.
 90. An act to amend the Stamp Duties Act of the present Session, c. 18. July 29.
 91. An act relating to naval and victualling stores. July 29.
 92. An act relating to the government of public schools. July 29.
 93. An act confirming pier and harbour orders. July 29.
 94. An act relating to Scottish episcopal disabilities. July 29.
 95. An act to amend the Accidents Compensation Act, 9 and 10 Vic., c. 93. July 29.
 96. An act for the sale of gas in Scotland. July 29.
 97. Burials Registration Act, making further provisions. July 29.
 98. An act extending the Bleaching and Dyeing Works Act, 1860. July 29.
 99. An act relating to the Civil Bill Courts, Ireland. July 29.
 100. An act confirming Justices' Proceedings in Sussex. July 29.
 101. An act amending the Highways Act. July 29.
 102. An act amending the Harwich Harbour Act. July 29.
 103. An act for the acquisition of lands for Portsmouth Dockyard. July 29.
 104. An act relating to public works (manufacturing districts). July 29.
 105. An act relating to the removal of the poor. July 29.
 106. An act relating to the salaries of Sheriffs Substitute in Scotland. July 29.
 107. Drainage and Improvement of Lands in Ireland, Supplemental Act. July 29.
 108. An act amending the West-Indian Incumbered Estates Act. July 29.
 109. An act providing for expenses of fortifications in the arsenals and dockyards of Dover and Portland, and for a central arsenal. July 29.
 110. Mitigated Penalties Act. July 29.
 111. An act relating to the construction of houses in and near Cranbourn-street. July 29.
 112. An act relating to the amendment of judgments, &c. July 29.
 113. Thames Conservancy Act. July 29.
 114. Improvement of Land Act, 1864. July 29.
 115. An act for prohibiting the placing, in fields and open places, of poisoned flesh and other poisonous substances. July 29.
 116. An act relating to the relief of the poor in the metropolis. July 29.
 117. Weights and Measures (Metric System) Act. July 29.
 118. An act relating to the salmon fisheries in Scotland. July 29.
 119. Naval Discipline Act. July 29.
 120. An act for facilitating the grant of further powers to railway companies. July 29.
 121. An act for facilitating the grant of powers of railway construction. July 29.

THE GOVERNORS AND DIRECTORS OF THE BANK OF ENGLAND.

Governor—KIRKMAN DANIEL HODGSON.

Deputy Governor—HENRY LANCELOT HOLLAND.

Thomas Baring.	Thomson Hankey.
Henry W. Blake.	John Benjamin Heath.
John W. Birch.	John G. Hubbard.
Travers Buxton.	Charles Frederick Huth.
Steven Cave.	Alfred Latham.
Edward H. Chapman.	George Lyall.
Robert W. Crawford.	Thomas Masterman.
William Cotton.	Alexander Matheson.
Bonamy Dobree.	James Morris.
Charles P. Grenfell.	Sheffield Neave.
Henry H. Gibbs.	George W. Norman.
John S. Gilliat.	Clifford Wigram.

TRANSFER DAYS OF THE FUNDS.

Dividends due the 5th of January and the 5th of July, and which are usually paid a few days after.

Three per Cent Consols	Tuesday, Wednesday, Thursday, and Friday.
New Three-and-a-Half per Cent. .. .. .	.. .. .
New Two-and-a-Half per Cent. .. .. .	.. .. .
Five per Cent .. .. .	.. .. .
Annuities for thirty years, expire Jan. 5, 1880 .. .. .	.. .. .
India Stock
India Five per Cent Stock .. .. .	.. .. .

Dividends due the 5th of April and the 10th of October, and which are usually paid a few days after.

Bank Stock .. .. .	.. .. .	Tuesday, Wednesday, Thursday, and Friday.
Three per Cent Reduced .. .. .	.. .. .
New Three per Cent .. .. .	.. .. .
Annuities, for thirty years, expire April 5, 1885 .. .. .	.. .. .	.. .. .

India Bonds interest due March 31 and Sept. 30, and payable on the following days.

Indian Loan Debentures (Four per Cent, 1864), interest due April 8 and Oct. 8.

THE QUEEN'S MOST HON. PRIVY COUNCIL.

(Members of the Judicial Committee are marked *)

H.R.H. Prince of Wales.	*Lord Brougham and Vaux.
King of the Belgians.	Lord Glenelg.
H.R.H. Duke of Cambridge.	Lord Stanley of Alderley.
Archbishop of Canterbury.	Lord Montague.
*Lord Westbury.	*Lord Cranworth.
Archbishop of York.	Lord Broughton.
*Earl Granville.	*Lord St. Leonards.
Duke of Argyll.	*Lord Wensleydale.
Duke of Somerset.	Lord Belper.
Duke of Richmond.	Lord Ebury.
Duke of Beaufort.	*Lord Chelmsford.
Duke of Buccleuch.	*Lord Kingsdown.
Duke of Montrose.	Lord Lyveden.
Duke of Newcastle.	Lord Llanover.
Duke of Northumberland.	Lord Taunton.
Duke of Leinster.	Lord Fitzhardinge.
Duke of Wellington.	Lord Athlumney.
Marquess of Salisbury.	John Evelyn Denison.
Marquess of Abercorn.	Sir George Grey, Bart.
Marquess of Donegall.	Sir Charles Wood, Bart.
Marquess of Exeter.	Hon. William Francis Cooper.
Marquess of Anglesey.	Hon. Edward Pleydell Bouverie.
Marquess of Cholmondeley.	Hon. Charles Pelham Villiers.
Marquess of Londonderry.	Hon. Henry T. Lowry Corry.
Marquess of Conyngham.	*Stephen Rumbold Lushington.
Marquess of Ailesbury.	Hon. Thomas Erskine.
Marquess of Clanricarde.	Holt Mackenzie.
Marquess of Bristol.	Sir Charles Edward Grey.
Marquess of Westminster.	Stephen Lushington.
Marquess of Normanby.	Sir Francis Thornhill Baring, Bart.
Earl of St. Germans.	William Ewart Gladstone.
Earl of Shrewsbury and Talbot.	*Sir James Lewis Knight Bruce.
Earl of Derby.	Sir James Wigram.
Earl of Denbigh.	*Sir Edward Ryan.
Earl of Chesterfield.	Sir Richard Pakenham.
Earl of Sandwich.	*Sir Frederick Pollock.
Earl of Carlisle.	Sir Thomas F. Freemantle, Bart.
Earl of Dalhousie.	Sir George Clerk, Bart.
Earl of Roseberry.	Sir Henry Lytton Bulwer.
Earl of Hardwicke.	Hon. James A. Stuart Wortley.
Earl de la Warr.	Thomas Milner Gibson.
Earl Spencer.	Richard More O'Ferrall.
Earl of Clarendon.	Sir William G. Hayter, Bart.
Earl of Beverley.	Sir David Dundas.
Earl of Malmesbury.	*Sir John Romilly.
Earl of Bessborough.	*Sir George James Turner.
Earl of Roden.	Laurence Sullivan.
Earl of Donoughmore.	Hon. George C. W. Forester.
Earl of Rosslyn.	Sir John S. Pakington, Bart.
Earl of Wilton.	Spencer Horatio Walpole.
Earl Grey.	Benjamin Disraeli.
Earl of Lonsdale.	Joseph Warner Henley.
Earl of Harrowby.	Robert Adam C. N. Hamilton.
Earl De Grey and Ripon.	William Beresford.
Earl Howe.	Sir John Trollope, Bart.
Earl of Ducie.	Sir John Young, Bart.
Earl of Ellenborough.	Edward Cardwell.
Earl of Stafford.	Duncan McNeill.
Earl Cowley.	John Parker.
Earl Russell.	Henry Unwin Addington.
Lord Edward G. F. Howard.	Edward Horsman.
Lord Charles Fitzroy.	Robert Lowe.
Lord John Manners.	William Monsell.
Viscount Sydney.	Sir George H. Seymour.
Viscount Falkland.	Sir Lawrence Peel.
Viscount Palmerston.	*Sir Alexander E. Cockburn, Bart.
Viscount Combermere.	Sir John McNeill.
Viscount Gough.	Frederick Peel.
Viscount Stratford de Redcliffe.	Henry Arthur Herbert.
Viscount Eversley.	Sir Edmund W. Head, Bart.
Lord Stanley.	Thomas H. S. Estcourt.
Viscount Bury.	Charles Bowyer Adderley.
Lord Lovaine.	John Robert Mowbray.
Lord Naas.	Sir E. G. E. L. B. Lytton, Bart.
Lord Proby.	*Sir John Taylor Coleridge.
Viscount Castlerosse.	John Inglis.
Viscount Newport.	Sir John L. M. Lawrence, Bart.
Lord Claude Hamilton.	Sir William G. Hilton Jolliffe, Bart.
Lord Ernest Bruce.	Thomas E. Headlam.
Bishop of London.	*Sir William Erle, Knight
Lord de Ros.	*Sir James W. Colville.
Lord Willoughby d'Eresby.	William Hutt.
Lord Kinnaird.	Sir Robert Peel, Bart.
Lord Napier.	Sir Andrew Buchanan.
Lord Foley.	Sir William Gibson Craig, Bart.
Lord Colchester.	Chichester Samuel Fortescue.
Lord Forester.	Sir James Plaisted Wilde.
Lord Bloomfield.	Henry Austin Bruce.

COMMISSIONNAIRES' TARIFF.

BY DISTANCE.—2d. half-a-mile or under; 3d. one mile, and over half-a-mile.
 BY TIME.—6d. per hour, or 2d. per quarter of an hour. When taken by time the Commissionnaire is to do $2\frac{1}{2}$ miles per hour, if walking.

Should the employer pay the fare of a Commissionnaire by rail, boat, or omnibus, he may require him to execute his duty by the Time Tariff.

N.B.—The Commissionnaires may charge 1d. per mile for every seven pounds exceeding one stone.

BY DAY of ten hours, 3s.; four hours, 1s. 6d. CALLING CARRIAGES, 2d.

No return fare except when employed, or if sent more than 3 miles from post.

N.B.—In sending Parcels, &c., Employers are requested to note the time of dispatch, on the outside, in order that the Receiver may ascertain whether any delay has occurred. The usual rate of walking may be taken at $3\frac{1}{2}$ miles per hour, or 5 per boat or omnibus.

JUNE.



RACING.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.			DURATION OF MOONLIGHT.					HIGH WATER AT				Day of Year.	
			Rises.	Souths before Noon.	Sets.	Rises. Morn.	Sets. Morn.	Moon's Age.	Before Sunrise.		After Sunset.	London Bridge.		Liverpool Dock.					
									O'clock.	0 1 2 3 4		O'clock.	8 9 10 11 12	Morn.	Aftern.	Morn.	Aftern.		
1	Th	Nicomede	3 51	2 28	8 5	11 55	0 13								7 9	7 34	4 12	4 40	152
2	F	Gordon Riots, 1780	3 50	2 18	8 6	Aftern.	0 37								8 2	8 34	5 12	5 46	153
3	S	Oxford Easter Term ends	3 49	2 9	8 7	2 2	0 58								9 8	9 40	6 18	6 48	154
4	S	PENTECOST. WHIT. SUN.	3 48	1 59	8 8	3 5	1 21								10 10	10 41	7 19	7 50	155
5	M	Boniface	3 48	1 49	8 9	4 8	1 45								11 12	11 41	8 19	8 45	156
6	Tu	Cavour died, 1861	3 47	1 38	8 10	5 12	2 12								—	0 7	9 10	9 30	157
7	W	Oxford Trinity Term begins	3 47	1 27	8 11	6 14	2 42								0 32	0 52	9 50	10 12	158
8	Th	Length of day 16h. 25m.	3 46	1 16	8 12	7 13	3 18								1 12	1 34	10 32	10 51	159
9	F	Crystal Palace opened, 1854	3 46	1 5	8 12	8 9	4 3								1 54	2 13	11 11	11 31	160
10	S	Smithfield closed, 1855	3 45	0 53	8 13	8 58	4 56								2 33	2 53	11 48	—	161
11	S	TRINITY S. St. Barnabas	3 45	0 41	8 14	9 41	5 55								3 10	3 30	0 8	0 27	162
12	M	Collins died, 1759	3 44	0 29	8 15	10 18	7 2								3 49	4 8	0 46	1 5	163
13	Tu	Corsica taken, 1767	3 44	0 17	8 15	10 48	8 13								4 27	4 48	1 26	1 48	164
14	W	Battle of Naseby, 1645	3 44	0 4	8 16	11 17	9 29								5 10	5 34	2 12	2 35	165
15	Th	Corpus Christi. Trinity Term ends	3 44	Aftern.	8 16	11 45	10 44								5 57	6 22	3 0	3 26	166
16	F	Earl Canning died, 1862	3 44	0 21	8 17	Morn.	Aftern.								6 48	7 16	3 54	4 25	167
17	S	Mean Temperature, 58 deg.	3 44	0 34	8 17	0 12	1 17								7 47	8 19	4 57	5 32	168
18	S	1ST S. AFT. TRIN. Waterloo. 1815	3 44	0 47	8 18	0 41	2 35								8 54	9 30	6 8	6 41	169
19	M	Magna Charta signed, 1215	3 44	1 0	8 18	1 10	3 51								10 3	10 36	7 14	7 49	170
20	Tu	Accession. Camb. Comm.	3 44	1 13	8 18	1 46	5 4								11 11	11 43	8 21	8 52	171
21	W	Proclamation	3 44	1 26	8 18	2 27	6 13								—	0 14	9 20	9 48	172
22	Th	Machiavel died, 1527	3 45	1 39	8 19	3 18	7 13								0 42	1 10	10 15	10 39	173
23	F	Cambridge Easter Term ends	3 45	1 52	8 19	4 14	8 4								1 37	2 11	11 5	11 29	174
24	S	St. John Bapt. Midsummer Day.	3 45	2 5	8 19	5 16	8 47								2 27	2 51	11 50	—	175
25	S	2ND SUND. AFT. TRINITY	3 46	2 18	8 19	6 22	9 22								3 12	3 35	0 13	0 33	176
26	M	Pizarro died, 1541	3 46	2 31	8 19	7 30	9 52								3 55	4 15	0 53	1 13	177
27	Tu	Dodd executed, 1777	3 47	2 43	8 19	8 37	10 17								4 35	4 53	1 31	1 51	178
28	W	Victoria Cross distributed, 1837	3 47	2 56	8 19	9 41	10 41								5 13	5 33	2 11	2 31	179
29	Th	St. Peter	3 48	3 8	8 18	10 44	11 3								5 53	6 12	2 50	3 12	180
30	F	Argyll beheaded, 1685	3 48	3 20	8 18	11 47	11 24								6 34	6 56	3 34	3 56	181



"A TRAIN OF THOUGHT," BY J. D. WATSON.—FROM "THE ILLUSTRATED LONDON NEWS."

FERNS AND BUTTERFLIES.

MAY AND JUNE.

THESE are the months when all nature seems to rejoice and to put on her richest attire. May has ever been a favourite month with poets, who sing its praises as uniting all the budding charms of spring with the brightness and radiance of summer. We fear, however, that in our variable climate June may more fairly claim the tribute of all this admiration than May, who frequently has but very scanty garlands to offer to her queens and maypoles. In the latter month the weather is usually less capricious, the trees are in their greenest robes, the sweetest flowers cover the ground, and the increasing heat produces a profusion of insect life which is a never-failing source of instruction and interest to the naturalist. Many of the inhabitants of towns, especially those of our young folk who are supposed to be engaged in study during the previous months of the year, take advantage of the warm weather in the latter part of June, or even earlier, to resort to the seashore, there to enjoy the fresh breezes and that peculiar exhilarating property of sea air known to recent philosophers as ozone. There is much to be enjoyed by the seaside by those of all tastes and tendencies. Our rambles on the sea-beach will be none the less refreshing if we know the names and nature of the plants which fringe its edge. There is the yellow horn poppy, *Glaucium luteum*, an attractive and beautiful plant in itself, but, when associated with the old legend, rendered still more interesting. It is named after Glaucus, the son of Neptune, and Nais, a sea nymph; and his abode was on the seashore, and he was fond of fishing. One day, having been very successful in his sport, he laid his scaly prize on a neighbouring marsh, when, to his great surprise, they began to nibble the green grass, and, spreading their fins, "left their new master and regained the sea." Amazed at what he saw, Glaucus resolved to test the power of the herbage in his own person, and no sooner had he bitten it than his hereditary propensities seized him and he leaped into the sea, where, for his faith and courage, he was received as a denizen among the sea gods. In their domain he still shows his Royal descent by wearing a golden robe; and yet, from old association, he bears high above all his favourite long and curved fishing-rod, with its point bent, as if a captive fish ever strained it. Glaucus never goes far out to sea, but rather frequents the shores and cliffs; for Scylla, whom he loved, was turned into a rock, with howling waves around her, and his faithfulness retains him still close to her side.

On the cliffs above we find the samphire growing (*Crithmum maritimum*), warm and aromatic in its taste and smell, and reminding us of its almost classical associations in "King Lear." The sea holly, too, (*Eryngium maritimum*), which pricks our unwary feet as we tread upon it in the sand, yet with its bluish or seagreen bloom on its leaves, and its pale, lilac, or blue flowers tempting us to gather it. In shady nooks among the cliffs we may chance to find the beautiful fern of our Plate, *Asplenium marinum*, the sea spleenwort. Its fronds are pinnate, the pinnae oblong and blunt, stalked, unequal and wedge-shaped at the base, the upper side or edge being much developed, while the lower portion looks as if a piece had been cut off. The sori are borne on the midrib; they are linear and large. The whole fern is narrow and lanceolate in outline, and its general appearance is so unlike that of any other British fern that it is easily distinguished. Its upper surface is of a deep glossy green, its under surface is paler. In the hothouse it attains much greater luxuriance than in its wild state, where, however, it is extremely beautiful. On all our seacoasts it is abundant, except the eastern side of England. In the south-west of England and in Wales it is most profuse. We have found it at Hastings, at Ilfracombe, and as far north as Scarborough in Yorkshire. In the Channel Islands it is especially luxuriant, and the visitor to the Lakes of Killarney cannot fail to observe this beautiful fern on the almost inaccessible rocks which abound there, where, from its situation, it is tolerably safe from the rapacious hands of the fern-collector. Its favourite positions are in the clefts of rocks or cliffs overhanging the sea, or growing out from the sides of caves dashed by the spray.

Although so common a fern on our sheltered seacoasts, it is very difficult to deal with artificially, and seldom succeeds in the open air—never in the neighbourhood of London. Mr. Sowerby tells us that he tried it several times with great care on rockwork, but never succeeded in keeping it alive through the winter. In some of the caverns where it grows most luxuriantly the light is almost entirely excluded, and it was only by imitating these natural conditions as nearly as possible that Mr. Sowerby was rewarded with anything like success. This careful observer tells us that it is only by close study of the natural conditions of a plant that we can hope to grow it artificially; and he reminds us that this particular fern—the sea spleenwort—will be found almost universally growing sheltered from the wind, and so disposed as to prevent the lodgment of rain upon the fronds. The latter is an essential point in the health of an evergreen fern. These circumstances render it a peculiarly suitable fern for a closed or Ward's case, and in this manner it may be brought into the closest atmosphere or into the densest city without injury. The soil which suits it best is a mixture of turfy peat and silver sand, mixed with friable loam, and pieces of porous sandstone or brick added to it. In a composition of this kind and in one of those glass cases now so commonly used, this beautiful fern will grow with the maidenhair and the lanceolate spleenwort, and form a most charming sight. The ingenious and talented inventor of these glass cases was first led to think of the possibility of growing plants under such circumstances by the accidental appearance of a fern and a blade of grass in an old bottle, in which was some mould containing the chrysalis of a moth. He continued to try experiments, relying on his own conviction that the main conditions necessary to the life of certain delicate plants were, a moist atmosphere, free from soot and other extraneous particles, light, heat, moisture, periods of rest, and change of air. All these conditions were secured in the glass case, and Mr. Ward tells us in his little book, published in 1852, and entitled "On the Growth of Plants in closely glazed Cases," how fully rewarded he was by the luxuriance of his ferns, and even other plants, during his early experiments in one of the closest and dirtiest parts of the city of London. Mr. Ward goes on to tell us how his desires increased, and that, after finding how well his ferns grew in this artificial atmosphere, he extended his operations and enlarged his cases, even to glazing over a London courtyard. Here he introduced rocks and tiny waterfalls, trickling cascades and shaded nooks, so that the ferns he so much loved were almost cheated into the idea that they were in their native wilds, and grew luxuriantly and beautiful accordingly. The suggestion of this skillful adaptation of natural laws to the wants of vegetable life could only have occurred to the mind of a philosopher and a student of nature, and we are struck with the remark of a celebrated mathematician who, after seeing Mr. Ward and his cases full of living plants, left him saying, "Come and see me. I can in some measure repay you in kind. I can make you do what you have made me do—think." The kind heart of the inventor of these cases must often have rejoiced to see how much pleasure his

thought has been the means of carrying into the homes of the poor and the abodes of sickness and misery. We ourselves have often found that in London plants will live a much longer time under a glass shade than when exposed to the fumes of gas and the impurity of the atmosphere. The most simple contrivance will accomplish the purpose; a bell-glass placed so as to fit tightly over on the edge of a large saucer or soup-plate filled with mould, carefully sifted and chosen, with bits of rock built up in a somewhat raised form, will encourage the growth of many common sorts of ferns; and pretty mosses or the delicate *Lycopodium* will cover the surface in a short time with a bright green carpet. The elegance and size of these cases may be according to our means, and we have seen them made of the humblest materials, yet accomplishing all that was desired, and giving great and wholesome delight to the sick and weary, many of whom had not looked upon a bright green growing plant for many a day. In many of our London hospitals, where the long white unfurnished walls must often weary the sick man's restless eye, it would be a gracious gift to place some of these inexpensive cases, filled with the fresh green fronds of our native ferns, mingled with the pretty white blossoms of the lovely wood sorrel (*Oxalis acetosella*), or the dew-tipped starry leaves of the drosera. Very little care do they require, and the removal of any mouldy or decaying leaves, and the occasional supply of extra moisture, would be a pleasant charge for the convalescent patients in the ward. In many of our hospitals we see beautiful engravings, supplied by the generosity of individuals, suspended on the hitherto bare walls, and we would suggest this further addition to the attention of those anxious to contribute to the few objects which gladden the eyes and refresh the senses of the inmates of such institutions. Especially should we like to see a few such cases in the sick wards of our workhouses, where the old and infirm are too often debarr'd from anything that can cheer the monotony of their life, lead them to remember that there is still a beautiful world around and outside them, and that the same Power which "considers the lily of the field" is assuredly not unmindful of them.

Windows constructed in this way form the most beautiful blinds that can be imagined, as there is not a window in London that cannot command throughout the year the most luxuriant verdure, admitting light into the dwelling and furnishing food to the mind as well as the body. Care must be had, however, not to exclude a due supply of the external air to a room so adorned, and any window so constructed below must be made to open above so as to secure free ventilation, for the loss of which nothing will compensate.

The next species which adorns our Plate, *Adiantum capillus veneris*, the true maidenhair, is particularly well adapted to grow in a Ward's case, and forms a most lovely object. It ought never to be exposed to the sun. It will grow perfectly with the sea spleenwort, in the same case, as the soil recommended is equally adapted for both, and their fronds mingle elegantly and gracefully together. The Maidenhair Fern is easily recognised by its fan-shaped leaflets and the little wiry black stalks which support them, giving rise to its specific name. It grows from nine to fifteen inches high, in circular masses, and is of a light green colour. Its slender creeping rhizome is shaggy, with black hair-like scales, and the base of the stipes is of a rich red brown colour. The pinnales are very irregular in shape, but mostly wedgeshaped, or tapering at the base, with a rounded or egg-shaped apex; and they have generally some variation of a fan-shaped outline. The stalk is usually about half the length of the frond, and is glossy black or deep purple. The veins in all the pinnales are two-branched, or forked from the base, the branches extending in straight lines to the margins, where in the barren fronds they end in the marginal notches; in the fertile fronds, however, they extend to the indusium and become the receptacle for the clusters. This beautiful little fern is evidently a wanderer from warmer climates, and is only very locally distributed in Great Britain. It is peculiarly the fern of Devonshire, but occurs on the south and west coasts of Ireland in great luxuriance. It is found only in moist caves, or the fissures of rocks, most frequently near the seacoast, where the water trickles over the roots, or where it is exposed to the sea spray. At Ilfracombe it grows beautifully on the face and in the vertical crevice of a rock in White Pebble Bay, commencing at a height of about twenty-five feet and descending to within five feet of the level of the sea. Mr. Henry Newman describes, in a letter, his discovery of this shadow-loving beauty in its retreat in Wales growing out of a rock incrustated with a soft deposit of carbonate of lime left by a trickling stream, and looking very much like cream cheese. There are three varieties of this fern, so distinct as to be considered as species by some writers. The first is a stronger, coarser, more robust plant than the others, with thicker stalks and larger fronds; the stipes have also a peculiar purple bloom. The second is the true normal fern, our present species, *Adiantum capillus veneris* of Linnaeus. The third is a looser, less compact variety, with the stocks of pinnales set on acute angles, and the pinnales more deeply divided. It is not so common as the other forms. The medicinal properties of the true maidenhair have long been extolled. The fronds have been used as a remedy in pulmonary consumption on account of the mucilage they contain. When boiling water is poured on them they yield this mucilage and a slight odour. The American Indians have used it from time immemorial for coughs and difficulty of breathing. John Ray cites it as a cure for innumerable maladies, and later herbalists have praised the decoction, not only as a remedy for coughs and other pectoral complaints, but also as a cure for jaundice, swollen joints, and many other complaints; and affirmed that "it stayeth the falling or shedding of the hair, and causeth it to grow thick, fair, and well coloured." As in the case of many other vaunted remedies, faith in its power doubtless was the greatest source of its success. The Canadian species of maidenhair was introduced into this country by John Tradescant, and it grows in such profusion in its native district that it is frequently used as a package for goods. The French chemists use this species extensively in the manufacture of capillaire, a sweet syrup which is sold very largely both in Paris and London. The true maidenhair is used in England for this purpose, and is a safer plant than the Canadian one, which acts as an emetic when taken in any quantity. The late Dr. Ball, of Dublin, says that the inhabitants of Arran, where the maidenhair grows plentifully, employ it as a substitute for tea. In our Plate we have the clouded yellow butterfly (*Colias edusa*), reminding us that the warm months of May and June develop a few of these beautiful sun worshippers, though we must not expect to find many of them till late in the season. They frequent the coasts, and are never found away from the sea. The male is of pale yellow orange colour, the upper wings with a wide black border, and a rounded spot of the same in the middle of each; the hinder wings are also margined with black, the ground colour slightly mixed with green, and each has a spot of deep yellow. The female is differently marked, and has a few yellow spots on the black band of the upper wings. Examples of this sex are occasionally found in which the parts generally yellow are of a greenish white. This is considered a rarity by the entomologist, and is called *Colias helice*. The pale clouded yellow (*Colias hyale*) is rather larger than the other species, and is less often seen, being chiefly confined to Kent, Sussex, and Suffolk, near the coast.

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

COMPARATIVE INCREASE OF THE POPULATION IN DIVISIONS AND REGISTRATION COUNTIES. INCREASE PER CENT. FROM 1801 TO 1861.

DIVISIONS AND REGISTRATION COUNTIES.	PERSONS.					
	1801 to 1811	1811 to 1821	1821 to 1831	1831 to 1841	1841 to 1851	1851 to 1861
LONDON.						
Middlesex (part of)	16	20	19	16	21	16
Surrey (part of)	25	28	26	22	21	20
Kent (part of)	30	11	12	23	29	44
SOUTH-EASTERN COUNTIES.						
1. Surrey (extra Metropolitan) ..	13	15	13	16	8	35
2. Kent (extra Metropolitan) ..	18	16	13	10	8	12
3. Sussex	19	22	17	10	12	8
4. Hampshire	12	15	11	12	13	14
5. Berkshire	8	12	10	9	5	3
SOUTH-MIDLAND COUNTIES.						
6. Middlesex (extra Metropol.) ..	18	17	14	15	7	24
7. Hertfordshire	12	17	10	10	7	2
8. Buckinghamshire	10	14	9	6	4	1
9. Oxfordshire	7	15	11	6	4	1
10. Northamptonshire	9	15	11	12	7	8
11. Huntingdonshire	12	18	10	10	9	2
12. Bedfordshire	10	20	13	14	16	8
13. Cambridgeshire	15	21	18	14	13	5
EASTERN COUNTIES.						
14. Essex	11	14	10	9	7	10
15. Suffolk	9	16	9	6	7	-2
16. Norfolk	6	18	13	5	7	-1
SOUTH-WESTERN COUNTIES.						
17. Wiltshire	4	15	8	8	-8	-2
18. Dorsetshire	8	16	10	10	5	3
19. Devonshire	12	15	13	8	6	4
20. Cornwall	14	18	15	13	4	3
21. Somersetshire	11	17	14	8	2	-2
WEST-MIDLAND COUNTIES.						
22. Gloucestershire	14	18	15	11	6	6
23. Herefordshire	6	10	8	2	3	8
24. Shropshire	9	8	7	5	1	4
25. Staffordshire	21	17	17	24	20	22
26. Worcestershire	14	15	16	13	13	14
27. Warwickshire	10	19	22	18	18	17
NORTH-MIDLAND COUNTIES.						
28. Leicestershire	15	16	12	10	7	3
29. Rutlandshire	-7	12	5	8	5	-3
30. Lincolnshire	13	19	12	14	12	1
31. Nottinghamshire	16	15	20	11	9	10
32. Derbyshire	15	15	12	15	9	13
NORTH-WESTERN COUNTIES.						
33. Cheshire	17	18	20	16	15	12
34. Lancashire	22	27	28	25	22	19
YORKSHIRE.						
35. West Riding	15	22	22	18	14	14
36. East Riding (with York) ..	19	15	11	15	14	9
37. North Riding	7	11	2	3	4	9
NORTHERN COUNTIES.						
38. Durham	10	17	22	30	26	32
39. Northumberland	9	16	11	12	14	13
40. Cumberland	14	17	8	5	10	5
41. Westmorland	12	12	7	3	3	4
MONMOUTHSHIRE AND WALES.						
42. Monmouthshire	32	22	27	34	17	11
43. South Wales	14	18	14	15	14	15
44. North Wales	10	17	10	10	4	3

ARMY AGENTS.

Barron and Smith, 26, Duke-street, Westminster.
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 Cane, R., and Sons, Dawson-street, Dublin.
 Clack, H. T., Esq., 50, Leicester-square.
 Codd, E. S., Esq., 35, Craven-street, Strand.
 Cox and Co., Craig's-court.
 Downes, C., and Son, 14, Warwick-street, Charing-cross.
 Grindlay and Co., 55, Parliament-street.
 Holt, V. W., Esq., 17, Whitehall-place.
 Hopkinson and Co., 3, Regent-street.
 Kirkland, Sir J., and Co., 17, Whitehall-place.
 Lawrie, A., Esq., 10, Charles-street, St. James's-square.
 McGrigor, Sir C. R., and W. McGrigor, Esq., 17, Charles-street, St. James's-square.
 Price and Poustead, 34, Craven-street, Strand.
 Ridgway, Alex. F., and Son, 40, Leicester-square.

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 Barvis and Hodgson, 1, New Boswell-court.
 Burnett and Co., 17, Surrey-street, Strand.
 Case and Loudonsack, 1, James-street, Adelphi.
 Chard W. and E., 3, Clifford's-inn, Fleet-street.
 Collier and Snee, 6, New-inn, Strand.
 Dufaur, F., 13, Clement's-inn.
 Hallett, Ommaaney and Co., 14, Great George-street.
 O'Byrne Brothers, 2, Adelphi-terrace.
 Slade, W., 21, Cecil-street, Strand.
 Stillwell and Co., 22, Arundel-street, Strand.
 Tury and Hildreth, 41, Norfolk-street, Strand.
 Woodhead and Co., 44, Charing-cross.

THE SPIRITUAL PEERS OF THE HOUSE OF LORDS.

		Cons.	Trans.
Right Hon. Dr. Charles T. Longley ..	Canterbury ..	1836	1862
Right Hon. Dr. William Thomson ..	York ..	1861	1862
Dr. Archibald Campbell Tait ..	London ..	1856	
Dr. Charles Baring ..	Durham ..	1856	1861
Dr. Charles Richard Sumner ..	Winchester ..	1826	1827
Dr. Henry Phillpotts ..	Exeter ..	1820	
Dr. Connop Thirlwall ..	St. David's ..	1840	
Dr. Ashurst Turner Gilbert ..	Chichester ..	1842	
Dr. John Lonsdale ..	Lichfield ..	1843	
Dr. Samuel Wilberforce ..	Oxford ..	1845	
Dr. Thomas Vowler Short ..	St. Asaph ..	1841	1846
Dr. James Prince Lee ..	Manchester ..	1848	
Dr. Renn Dickson Hampden ..	Hereford ..	1848	
Dr. John Graham ..	Chester ..	1848	
Dr. Alfred Ollivant ..	Llandaff ..	1849	
Dr. John Jackson ..	Lincoln ..	1853	
Dr. Walter Kerr Hamilton ..	Salisbury ..	1854	
Dr. Robert John Eden (Lord Auckland)	Bath and Wells ..	1854	
Dr. Robert Bickersteth ..	Ripon ..	1856	
Hon. Dr. John Thomas Pelham ..	Norwich ..	1857	
Dr. James Colquhoun Campbell ..	Bangor ..	1859	
Dr. Joseph Cotton Wigram ..	Rochester ..	1860	
Hon. Dr. Samuel Waldegrave ..	Carlisle ..	1860	
Dr. Henry Phillpotts ..	Worcester ..	1860	
Dr. Charles John Eliott ..	Gloucester and Bristol	1862	
Dr. Edward Harold Browne ..	Bly ..	1864	

SUMMARY OF THE TWO HOUSES OF PARLIAMENT.

HOUSE OF PEERS.		HOUSE OF COMMONS.	
		ENGLAND.	Members.
Peers of the Blood Royal ..	3	40 Counties ..	144
Archbishops ..	2	Isle of Wight ..	1
Dukes ..	20	186 Cities, Boroughs, &c. ..	320
Marquises ..	19	with two contribu-	469
Earls ..	110	tory Boroughs ..	
Viscounts ..	22	2 Universities ..	4
Bishops, 24; one a Temporal Peer	23	WALES.	
Barons ..	207	12 Counties ..	15
Scotch Representative Peers ..	16	14 Boroughs, with 45 con-	29
Irish Representative Peers ..	28	tributory ditto ..	14
Irish Spiritual Peers ..	4	SCOTLAND.	
Total ..	*454	33 Counties ..	30
		7 Cities and Towns ..	9
		14 Districts of Burghs ..	14
		IRELAND.	
		32 Counties ..	64
		33 Cities and Boroughs ..	39
		1 University ..	2
		Total ..	656

* Of whom 19 are minors, making the actual number of the House of Peers 435.

OFFICERS OF THE HOUSE OF PEERS.

Clerk of Parliaments, Sir John G. Shaw Lefevre, K.C.B.
 Deputy Clerk of Parliaments (Clerk Assistant), Wm. Rose, Esq.
 Reading Clerk and Clerk of Private Committees, L. Edmunds, Esq.
 Counsel to Chairman of Committees, R. J. Palk, Esq.
 Chief Clerk, H. Stone Smith, Esq.
 Principal Clerk for Bills, W. E. Walmisley, Esq.
 Clerk attending the Table, and Cashier, W. A. Green, Esq.
 Other Clerks in the Office, P. Birch, E. M. Parratt, B. S. R. Adam, M. F. Halliday, W. H. Haines, F. Vane, C. Congreve, O. E. Grant, J. H. Robinson, A. W. Dnbourg, H. Walmisley, W. Malony, C. W. Green, Esqrs.; Hon. F. Stonor, L. Birch, F. G. Green, A. Pechell, G. J. Webb, H. Brougham, M. A. Thoms, W. H. Palk, H. C. Malkin, Esqrs.; Hon. E. P. Thesiger, R. W. Monro, A. Harrison, Esqrs.
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 Peers' Printed Paper Office, O. E. Grant, Esq.
 Summoning Officer and Receiver of Fees, Parliament Office, W. A. Malony, Esq.
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 Deputy Librarian, W. I. Thoms, Esq., F.S.A.
 Examiners for Standing Orders, S. Smith, Esq.; C. Frere, Esq.
 Clerk, E. Webster, Esq.

Gentleman-Usher of the Black Rod, Admiral Sir A. W. Clifford, Bart., C.B.
 Yeoman-Usher, Colonel R. C. Spencer Clifford.
 Sergeant-at-Arms, Lieutenant-Colonel Hon. W. P. M. C. Talbot.
 Deputy, G. Wallace Goodbody, Esq.
 Receiver of Fees, House of Lords, G. J. Oldrini, Esq.
 Shorthand Writer, Jos. Gurney, Esq.; Assistant, W. H. Salter, Esq.
 Principal Doorkeepers, Messrs. G. J. Oldrini, R. Moody, W. Moyes, W. Howard.
 First-class Assistants, Messrs. W. H. Brophy, H. K. Brown, T. Ramsay.
 Second-class ditto, Messrs. A. Ward, H. Holloway, J. Smith, H. Goddard.
 Third-class ditto, Messrs. J. Nicholl (to Bishops), W. Webb, H. Fox.
 Messengers, Messrs. G. Lovett (to Lord Chancellor), J. Kendall, J. Leverett (to Library), J. Hall, J. G. B. Marshall, W. Chandler (to Chairman of Committees). Ventilator, Mr. E. Jones.
 Superintendent of Refreshment Rooms, Mr. W. Bladon.
 Housekeeper, Mrs. Bennett; Necessary Woman, Mrs. Oldrini.
 Police Inspector attending the House of Lords, Mr. W. Moran.

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 Grindlay and Co., 55, Parliament-street.
 Ridgway, A. F. and Sons, 40, Leicester-square.
 Richardson and Co., Pall-mall.
 Smith, Elder, and Co., 65, Cornhill, and Pall-mall.

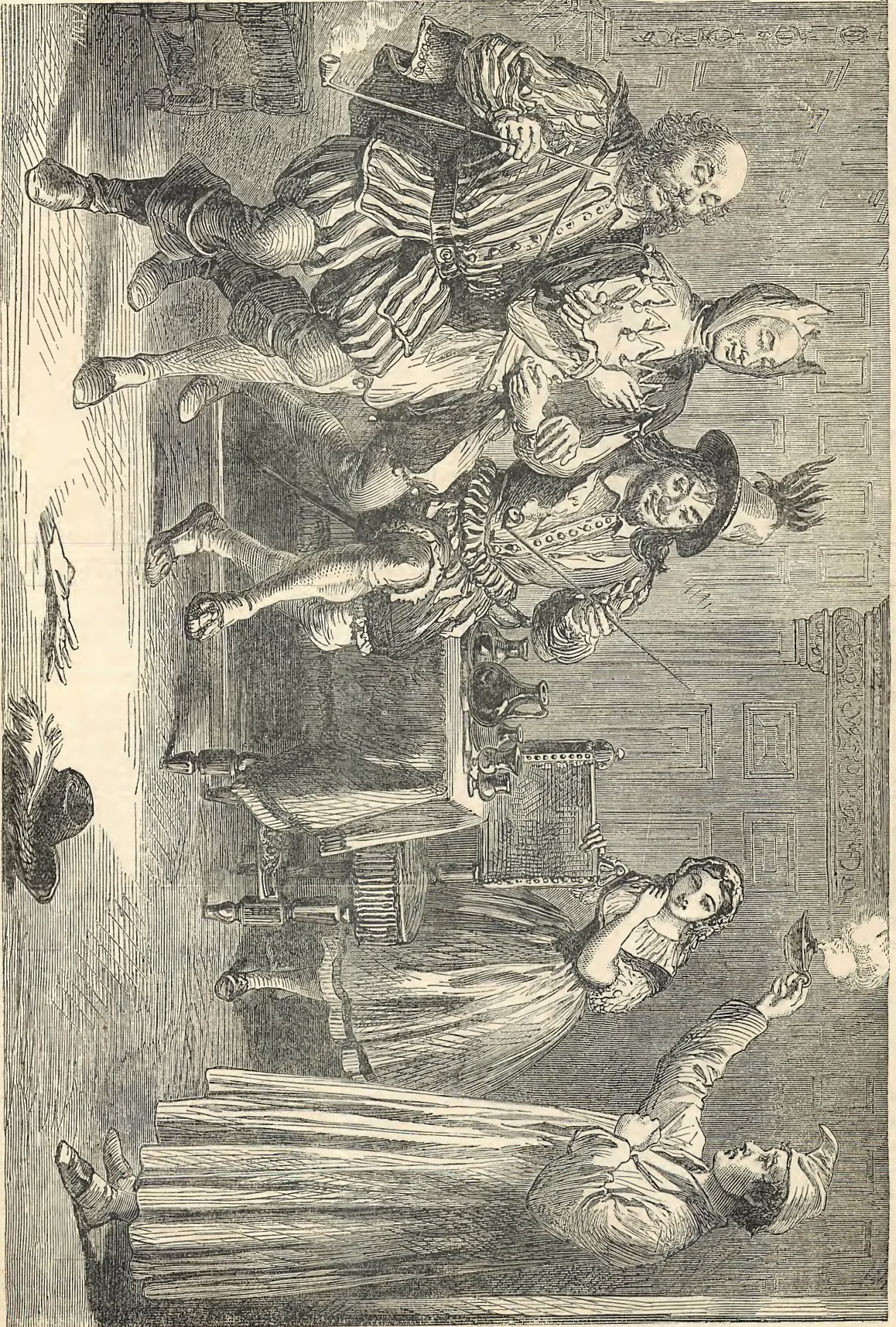
JULY.



A MOONLIGHT TRIP.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.		DURATION OF MOONLIGHT.											HIGH WATER AT				Day of Year.	
			Rises.	Souths after Noon.	Sets.	Rises. Aftern.	Sets. Aftern.	Before Sunrise.					Moon's Age.	After Sunset.						London Bridge.		Liverpool Dock.		
								O'Clock.						O'Clock.						Morn.	Aftern.	Morn.		Aftern.
			H. M.	M. S.	H. M.	H. M.	H. M.	1	2	3	4	5		7	8	9	10	11	H. M.	H. M.	H. M.	H. M.		
1	S	Battle of the Boyne, 1690	3 49	3 31	8 18	0 51	11 48						0						7 18	7 40	4 18	4 42	182	
2	S	3RDS. AFT. TRIN. <i>Visitn.</i>	3 50	3 43	8 17	1 54	Morn.						9						8 4	8 36	5 14	5 48	183	
3	M	Dog Days begin	3 50	3 54	8 17	2 57	0 12						10						9 10	9 42	6 20	6 52	184	
4	Tu	Oxford Act	3 51	4 58	17	3 59	0 42						11						10 14	10 47	7 25	7 58	185	
5	W	Mean Daily Temperature, 60 deg.	3 52	4 15	8 16	5 1	1 16						12						11 20	11 50	8 28	8 55	186	
6	Th	Battle of Wagram, 1809	3 53	4 25	8 16	5 58	1 57						13						—	0 17	9 20	9 42	187	
7	F	<i>Thomas à Becket</i>	3 54	4 35	8 15	6 51	2 46						14						0 42	1 4	10 5	10 27	188	
8	S	Oxford Trinity Term ends	3 54	4 44	8 14	7 36	3 43						15						1 27	1 49	10 48	11 10	189	
9	S	4TH SUND. AFT. TRINITY	3 55	4 53	8 14	8 17	4 48						16						2 10	2 32	11 32	11 52	190	
10	M	London Bridge burnt, 1212	3 56	5 28	13	8 53	6 0						17						2 54	3 14	—	0 13	191	
11	Tu	Jack Cade killed, 1450	3 57	5 10	8 12	9 23	7 14						18						3 35	3 54	0 32	0 52	192	
12	W	Mean Daily Temperature, 61 deg.	3 59	5 18	8 11	9 50	8 32						19						4 14	4 36	1 14	1 36	193	
13	Th	Buckingham Palace comp., 1837	4 0	5 25	8 10	10 17	9 49						20						4 58	5 19	1 57	2 21	194	
14	F	Birmingham Riots, 1791	4 1	5 32	8 10	10 47	11 7						21						5 43	6 7	2 45	3 11	195	
15	S	<i>St. Swithin</i>	4 2	5 38	8	11 16	Aftern.						22						6 33	6 59	3 37	4 5	196	
16	S	5TH SUND. AFT. TRINITY	4 3	5 44	8	11 48	1 38						23						7 27	7 56	4 34	5 4	197	
17	M	Charlotte Corday executed, 1793	4 4	5 49	8	Morn.	2 53						24						8 26	9 2	5 40	6 17	198	
18	Tu	Battle of Vienna, 1683	4 6	5 54	8	5 0	26 4 1						25						9 39	10 15	6 53	7 30	199	
19	W	Petrarch died, 1374	4 7	5 58	8	4 1	12 5 3						26						10 52	11 29	8 7	8 40	200	
20	Th	<i>Margaret</i>	4 8	6 28	3	2 5	5 58						27						—	0 2	9 13	9 40	201	
21	F	Battle of Bull Run, 1861	4 9	6 58	2	3 3	6 43						28						0 35	1 2	10 8	10 31	202	
22	S	<i>Mary Magdalene</i>	4 11	6 8	1	4 6	7 22						29						1 30	1 53	10 54	11 16	203	
23	S	6TH SUND. AFT. TRINITY	4 12	6 10	7 59	5 14	7 52						1						2 16	2 38	11 37	11 56	204	
24	M	Length of Day 15h. 45m.	4 13	6 12	7 58	6 20	8 19						2						2 59	3 18	—	0 15	205	
25	Tu	French Revolution, 1830	4 15	6 13	7 57	7 25	8 44						3						3 37	3 54	0 32	0 49	206	
26	W	<i>St. Anne</i>	4 16	6 13	7 55	8 30	9 9						4						4 11	4 29	1 7	1 24	207	
27	Th	Battle of Talavera, 1809	4 18	6 13	7 54	9 34	9 30						5						4 46	5 2	1 40	1 57	208	
28	F	Twilight ends 11h. 0m.	4 19	6 12	7 52	10 37	9 53						6						5 19	5 36	2 14	2 31	209	
29	S	Andrew Marvel died, 1678	4 21	6 10	7 51	11 40	10 16						7						5 53	6 13	2 51	3 11	210	
30	S	7TH SUND. AFT. TRINITY	4 22	6 8	7 49	Aftern.	10 43						8						6 33	6 54	3 32	3 52	211	
31	M	St. Helena discovered, 1502	4 24	6 6	7 48	1 44	11 14						9						7 14	7 37	4 15	4 44	212	

THE SHAKSPEARE COMMEMORATION AT STRATFORD-ON-AVON: SCENE FROM "TWELFTH NIGHT" AS PLAYED IN THE FESTIVAL PAVILION.—FROM "THE ILLUSTRATED LONDON NEWS."



THE ILLUSTRATED LONDON ALMANACK FOR 1865.

LIST OF PERSONS OF NOTE OR TITLE WHO HAVE DIED WITHIN THE LAST TWELVE MONTHS.

*** Detailed Biographical Notices of all these persons are to be found in the ILLUSTRATED LONDON NEWS.*

- 1863.
- Aug. 15.—Wilmot, Commander Edward, R.N., fell in action, on board her Majesty's ship *Euryalus*, before Kagosima, in Japan.
- Josling, Captain John James Stephen, R.N., fell in the same action and same ship.
- Sept. 16.—Nicolson, Sir Arthur, seventh Baronet, of Nicolson and Leswade.
- 20.—Grimm, Jacob Ludwick, a very eminent philologist.
- 24.—Dashwood, Sir John Richard, sixth Baronet, of West Wycombe, Buckinghamshire.
- 26.—Faber, the Very Rev. Frederic, D.D., Superior of the Oratory at Brompton, a poet, writer, and divine of great distinction.
- 28.—Hamphrey, the Right Worshipful John, Alderman of the city of London and Governor of the Irish Society.
- 30.—Sinclair, the Right Hon. Charles St. Clair, twelfth Baron Sinclair, in the Peerage of Scotland.
- In Sept.—De Vigny, Count Alfred, the celebrated author of "Cinq Mars."
- Oct. 2.—Bellairs, Sir William, Knt., of Mulbarton Lodge, Norfolk.
- 5.—Sheepshanks, John, Esq., the accomplished owner of the famous collection of pictures known as the Sheepshanks Gallery.
- 6.—Trollope, Mrs. Frances Anne, one of the cleverest and most amusing novelists of her day.
- 8.—Dublin, the Right Hon. and Most Rev. Richard Whately, D.D., Archbishop of an eminent writer, logician, and divine.
- 8.—Bonham, Sir Samuel George, Bart., K.C.B.
- 8.—Darling, General William Lindsay, a distinguished Peninsula and Waterloo officer.
- 12.—Lyndhurst, the Right Hon. Sir John Singleton Copley, Baron Lyndhurst, S.L., P.C., F.R.S., D.C.L., High Steward of the University of Cambridge and one of the Governors of the Charterhouse, aged 91; a great lawyer, orator, judge, and statesman.
- 16.—Stewart, Lady Katherine.
- 17.—Charleton, Lieutenant-Colonel Henry Wilmot.
- 18.—Anstruther, Sir Ralph Abercrombie, fourth Baronet.
- 18.—Hope, George William, Esq., M.P. for Windsor.
- 18.—Login, Sir John Spencer, M.D.
- 19.—Langston, James Haughton, Esq., M.P. for Oxford.
- 19.—Weld, Joseph, Esq., of Lulworth Castle.
- 22.—Vernon, the Rev. Charles, D.D., of Wherstead Park, and Great Thurlow Hall, Suffolk.
- 22.—Macneil, General Roderick, of Barra, in the county of Inverness, Chief of the Clan Macneil, a General in the British Army and Colonel of the 78th Highlanders.
- 23.—Nugent, Sir Hugh Joseph, fourth Bart., of Ballinlough Castle, in the county of Westmeath, and a Count the Holy Roman Empire.
- 25.—Raikes, Henry, Esq., F.R.G.S., of Llwynegryn Hall, Flintshire.
- 26.—Johnson, Lieutenant-General William Augustus.
- 28.—Cubitt, William, Esq., M.P. for the Andover, President of St. Bartholomew's Hospital, and for two successive years Lord Mayor of London.
- In Oct.—Carton, the Rev. Abbé, Canon of Bruges and Knight of the Order of Leopold, the philanthropic founder and director of the famous asylum for the deaf, dumb, and blind, at Bruges.
- In Oct.—Johnstone, General John Douglas, C.B., a very gallant Crimean officer.
- Nov. 1.—Stanley of Alderley, the Right Hon. Maria Josepha, Dowager Baroness.
- 6.—Leven and Melville, the Right Hon. Elizabeth Ann, Dowager Countess of.
- 11.—Chesham, the Right Hon. Charles Compton Cavendish, Baron.
- 13.—Sinclair, Admiral Sir John Gordon, eighth Baronet.
- 13.—McCauley, the Rev. Alexander, D.D., Professor of Hebrew and Divinity, of King's College, London, Prebendary of St. Paul's Cathedral; a distinguished theological and polemical writer.
- 15.—Denmark, Frederick VII. (Charles Christian), King of.
- 16.—Bolton, the Right Hon. Maria, Dowager Lady.
- 17.—Gilbert, Sir Francis Hastings, second Baronet.
- 20.—Elgin: his Excellency the Right Hon. Sir James Bruce, eighth Earl of Elgin, K.T., K.C.B., P.C., Viceroy and Governor-General of India, a leading statesman and diplomatist.
- 21.—Scott, Sir Francis Edward, third Baronet.
- 23.—Jerrard, George Birch, Esq., a distinguished author.
- 29.—Plumridge, Admiral Sir James Hanway, K.C.B.
- 30.—Skipwith, Sir Thomas George, ninth Baronet.
- In Nov.—Montebello, Eleanor Mary, Duchess of.
- In Nov.—Owen, the Rev. Edward Pryce, M.A., a distinguished patron of painting, collector of pictures, and artist.
- In Nov.—Eliot, Captain Edward John.
- Dec. 2.—Middleton: the Right Hon. Charles Brodrick, sixth Viscount Middleton.
- 4.—Martin, Sir Henry, third Bart., of Lockyng, Berks.
- 4.—James Duffield Harding, Esq., a distinguished water-colour landscape painter.
- 7.—Lincoln, the Very Rev. Thomas Garnier, Dean of, B.C.L., a writer of note.
- 10.—Wightman, the Hon. Sir William, S.L., First Puisne Justice of the Court of Queen's Bench; a highly-respected lawyer and Judge.
- 10.—Barrows, William, Esq., of Himley House and Bloomfield Ironworks, Staffordshire.
- 12.—Fitzgibbon, Colonel James.
- 14.—Shiffner, the Rev. Sir George, M.A., third Bart., of Coombe, Sussex.
- 18.—Forshall, the Rev. Josiah, M.A., F.R.S., some time Fellow and Tutor of Exeter College, Oxford, and subsequently Keeper of MSS., and also Secretary of the British Museum; a distinguished writer.
- 20.—Glyn, Sir Richard Plumtree, second Bart., a gentleman of the Privy Council.
- 24.—Thackeray, William Makepeace, one of the greatest novelists and essayists of his age.
- 26.—Charlemont, the Right Hon. Sir Francis Caulfield, second Earl of, K.P., P.C.
- 26.—Boyle, the Lady Blanche Emma, Viscountess.
- 26.—Pakenham, the Hon. and Very Rev. Henry, D.D., Dean of St. Patrick's and Christchurch, Dublin, and Registrar of the Order of St. Patrick.
- 29.—Valentia, the Right Hon. Sir Arthur Annesley, Viscount.
- 30.—Campbell, Miss Alicia; sister of the illustrious Sir Colin Campbell, G.C.B., Lord Clyde.
- In Dec.—Ayscough, John, Admiral of the Red, the oldest Admiral in the Navy.
- In Dec.—Riley, William Felix, Esq.

1864.

- Jan. 3.—Behnes, William, a sculptor of high repute.
- 5.—Gage, Admiral Sir William Hall, G.C.B., Admiral of the Fleet.
- 6.—Wynyard, Major-General Robert Henry, C.B., Colonel of the 98th Regiment of Foot.

- 7.—Ely, the Right Rev. Thomas Turtin, D.D., Lord Bishop of, a distinguished divine and writer on theology.
- 7.—Combe, Boyce, Esq., barrister-at-law, and a metropolitan police magistrate.
- 10.—Clare, the Right Hon. Richard Hobart Fitzgibbon, third Earl of.
- 16.—Athole, his Grace Sir George Augustus Frederick John Murray, K.B., sixth Duke of.
- 18.—Cleveland, his Grace Sir Henry Vane, K.G., second Duke and Marquis of.
- 22.—Atherton, Sir William, Q.C., M.P., a Bencher of the Inner Temple, and recently Attorney-General.
- 23.—Henderson, Admiral George, R.N.
- 23.—Allen, Rear-Admiral William, R.N., of Bank House, Weymouth.
- 23.—Brinckman, Lady Annabella.
- 25.—Meredyth, Doligny, Lady, widow of Sir Joshua Meredyth, Bart.
- 25.—Law, the Hon. Elizabeth Sophia.
- 29.—Aikin, Miss Lucy, a distinguished writer.
- 29.—Rose, Heinrich, F.R.S., a noted German analytical chemist.
- 31.—Gordon, her Grace Elizabeth, Duchess of.
- Feb. 1.—Parma: H.R.H. Louisa Maria Theresa, d'Artois de Bourbon, sister of Henri, Count de Chambord, Dowager Duchess of Parma, an amiable but most unfortunate Princess, the daughter of the Duke of Berry, and widow of the Duke of Parma, who were both assassinated.
- 2.—D'Alton, the Hon. Rosalie, Countess.
- 2.—Procter, Miss Adelaide Anne, a poetess of note, daughter of the poet Bryan Procter, Esq. (Barry Cornwall).
- 3.—Hardinge, the Rev. Sir Charles, second Baronet.
- 5.—Lygon, Lady Louisa.
- 7.—Fitzgerald, the Hon. Mrs. Foster Vesey, née the Hon. Letitia Foster.
- 7.—Newman, the Rev. William Abiah, D.D., F.S.A., formerly Dean of Cape Town; a writer of talent.
- 13.—Ruthven, Mary Elizabeth, Baroness.
- 13.—Cory, Rear-Admiral Nicholas, R.N.
- 16.—Dalling, Sir William Windham, second Baronet.
- 22.—Bankes, Lady Charlotte Elizabeth.
- 23.—Wake, Sir Charles, tenth Baronet.
- 24.—Gillis, the Right Rev. James, D.D., Catholic Bishop of Limyra and Vicar Apostolic of Edinburgh; an eminent orator, preacher, and divine.
- 28.—Biddulph, Robert, Esq., F.R.G.S., the head partner of the great banking firm of Biddulph, Cocks, and Co.
- 29.—Swinburne, Lieutenant-General Thomas Robert, F.R.S.
- In Feb.—Sutton, Major-General William, C.B., commanding the troops at Dover.
- March 1.—Roberts, Sir Thomas Howland, second Baronet, J.P.
- 2.—Brown, Sir William, Bart., one of the most eminent merchant princes of Liverpool.
- 3.—O'Brien, Stafford, Esq., of Blatherwyck Park, in the county of Northampton.
- 8.—Parker, Captain Thomas Edwards, Esq.
- 10.—Bavaria, Maximilian II. (Joseph), King of.
- 12.—Loftus, Sir Francis Hamilton, third Baronet.
- 15.—Stöckenström, Sir Andrew, Bart., of Maastrom, Cape of Good Hope, formerly Lieutenant-Governor of that colony.
- 18.—Patton, Admiral Hugh.
- 22.—Aberdeen, the Right Hon. Sir George John James Hamilton-Gordon, fifth Earl of.
- 23.—Sidmouth, the Right Hon. and Rev. William Leonard Addington, second Viscount.
- 25.—Hesse-Cassel, H.R.H. Princess Louisa Charlotte, Landgravine of.
- 29.—Wemyss, James Hay Erskine, Esq., M.P. for Fifeshire.
- 30.—Hulton, William, Esq., of Hulton Park, Lancashire, J.P. and D.L., and formerly Constable of Lancaster Castle.
- 30.—Coorg, the Princess Victoria Gounaramma of.
- In March.—Ashburton, the Right Hon. William Bingham Baring, P.C., second Baron.
- In March.—Ealy, the Very Rev. Denis Browne, M.A., Dean of.
- In March.—Thomson, Admiral John, senior retired Admiral, R.N.
- In March.—Horne, Leonard G., Esq., F.R.S., a distinguished writer.
- April 2.—Glengall, the Right Hon. Margaret Lauretta Butler, Countess of.
- 2.—Burrer, Lieutenant-Colonel Gabriel.
- 5.—Watts, Alaric Alexander, Esq., an excellent poet, journalist, and general writer.
- 6.—Bingham, Colonel Charles, R.A., Deputy Adjutant General.
- 7.—Stanhope, the Hon. and Very Rev. Fitzroy, M.A., Dean and Rector of St. Burian, Cornwall, heir presumptive to the Earldom of Harrington.
- 9.—Conroy, Dowager Lady Elizabeth.
- 18.—Peterborough, the Right Rev. George Davys, D.D., Lord Bishop of.
- 20.—Charlesworth, the Rev. John, late Rector of St. Mildred's, Broad-street, Chancery.
- 23.—Ricketts, Thomas Bourke, Esq., of Coombe, in the county of Hereford, the venerable representative of a very honourable and ancient family.
- 26.—Dalrymple-Hay, Captain Thomas Hugh Shaw.
- 27.—Kershaw, James, Esq., M.P. for Stockport.
- 28.—Goddess, Lieut.-General John, K.H., Colonel of the 27th Regiment.
- 30.—Dunsany, the Right Hon. Eliza, Dowager Lady.
- In April.—Tucker, Admiral Sir Edward, G.C.B.
- In April.—Taylor, Admiral Joshua Needham, C.B.
- In April.—Pillans, Professor James, M.A., LL.D.
- May 1.—Falmouth, the Right Hon. Anne Frances, Dowager Countess of.
- 1.—Smedley, Francis Edward, Esq., an agreeable and popular novelist and writer.
- 2.—Meyerbeer, Giacomo, an illustrious composer.
- 3.—Spencer, the Rev. Almeric John Churchill, Incumbent of Erie Stern-dale-cum-Burbage.
- 8.—Anderson, Sir James, a magistrate for Dumbartonshire.
- 11.—Heneage, George Fieschi, Esq., a magistrate and Deputy Lieutenant for the county of Lincoln.
- 14.—Robinson, Admiral Hercules, R.N.
- 16.—Tulloch, Major-General Sir Alexander Murray, K.C.B.
- 19.—Lake, Major-General Noel Thomas, C.B., R.A.
- 19.—Hawthorne, Nathaniel, one of the most distinguished American novelists and writers of his time.
- 22.—Pélessier, his Excellency Aimable John James, Duke of Malakoff, a Marshal of France, commanding the 7th Corps d'Armée, and Governor-General of Algeria, a very famous French military leader.
- 22.—De Septeuil: the Lady Horatia, née Capel, Countess de Septeuil.
- 27.—Graham, Sir Edward, ninth Bart. Torrens, Lieutenant-Colonel Robert, noted for his writings on political economy, and for his connection with the colonisation of South Australia.
- Cochrane, Major Robert, Military Knight of Windsor; a Peninsula and Waterloo officer.
- 30.—Bacon, Sir Edmund, the Premier Baron.
- In May.—Dubufe, Claude Marie, the great French portrait and historical painter.
- June 1.—Brakenbury, Lieutenant-Colonel Sir Edward, Knt., Knight of St. Fernando and Isabella the Catholic of Spain, K.T.S., and Knight Commander of St. Bento d'Aviz, of Portugal.
- 3.—Fox, William Johnson, for many years M.P. for Oldham, one of the ablest and most eloquent of the lecturers of the Anti-Corn Law League and a contributor to various publications.
- 7.—Brooks, Samuel, Esq., the well-known leading banker and agriculturist.

- 11.—Vane-Tempest, Lieutenant-Colonel Lord Adolphus Frederick Charles William, M.P. for North Durham, a Deputy Lieutenant and J.P. for the county of Durham.
- 11.—Mazzeinghi, George Dominick, a Count of the Lateran Hall and Apostolic Palace, in the Papal dominions.
- 11.—Ferrier, James F., LL.D., Professor of Moral Philosophy in St. Salvator and St. Leonard College, University of St. Andrews.
- 13.—Grenville, Lady, widow of the Minister and statesman Lord Grenville.
- 14.—Fanshawe, Sir Arthur, K.C.B., Admiral of the Blue.
- 15.—Gosford, the Right Hon. Sir Archibald Acheson, K.P., third Earl of.
- 17.—Cureton, The Rev. William, D.D., F.R.S., a Canon of Westminster, Rector of St. Margaret's, Chaplain in Ordinary to the Queen, and a Royal Trustee of the British Museum.
- 17.—Miller, Professor James, an eminent surgeon and medical author.
- 18.—Lance, Mr. George, one of the best still-life painters of his time.
- 20.—Ponlett, The Right Hon. John Poulett, fifth Earl.
- 21.—Craven, the Hon. Frederick.
- 24.—Coddington, Sir Christopher William Bethell, M.P. for East Gloucestershire, D.L. and J.P. for the same county, and Captain of the Dodington squadron of yeomanry.
- 25.—Wirttemberg, William I. (Frederic Charles), King of.
- 27.—Whiteside, the Rev. John William, D.C.L. (Surrogate), Vicar of Scarborough, Yorkshire, an excellent divine, brother of the Right Hon. James Whiteside, M.P.
- 29.—Miller, the Rev. Sir Thomas Combe, sixth Baronet, Vicar of Froyle, Hants.
- July 1.—Dalton, John, Esq., of Sleningford Park, Yorkshire, J.P. and D.L.
- 2.—Cox, Lieutenant-Colonel Sir William, Knt., of Cooleliffe, in the county of Wexford, C.B., K.T.S., J.P., and D.L.
- 4.—Grattan, Thomas Colley, Esq., a very clever novelist, essayist, and writer.
- 5.—Branthwaite, the Rev. John, M.A., Principal of St. Edmund Hall, Oxford.
- 17.—Cust, the Hon. and Rev. Richard, Rector of Belton.
- 19.—Wood, Alexander, of Woodcot Park, Haddingtonshire, a Lord of Session in Scotland, as Lord Wood.
- 20.—Hardinge, Major-Gen. Richard, Royal Horse Artillery, K.H.
- 20.—Kemmis, William, Esq., formerly Crown Solicitor of Dublin and the Leitner Circuit.
- 22.—Hidley, the Dowager Lady, and her daughter, Mrs. Cookson.

IRISH TITLES OF HONOUR.—Titles of honour are still borne by the representatives of some of the old Milesian families in Ireland. Some of these titles have become extinct in course of time, such as The O'Moore, the White Knight, The O'Sullivan Bear, The O'Moore, &c., and some have been merged in peerages. The O'Bryen in the titles of Thomond (now extinct) and Inchiquin, the O'Neills in an earldom (extinct), The O'Callaghan in Lord Lismore, and the descendant and representative of the O'Byrnes in Lord de Tabley. But the following titles are still preserved and generally acknowledged:—The O'Donoghue of the Glens, The O'Conor Don, The Knight of Kerry, The Knight of Glen, The O'Grady, The McGillicuddy of the Reeks, and The McDermot, Prince of Coolvaine. The two first of these represent Irish constituencies, and it is believed are the only Irish chieftains who have adhered to the national religion: all the others are Protestants. Indeed, it is a curious circumstance, that while we see the O'Neills, the O'Bryens, the O'Callaghans, the O'Byrnes—indeed, almost all the lineal descendants of the old Irish families—staunch Protestants (some of them even Orangemen; the late Lord O'Neill was Grand Master of the Orangemen); we find, on the other hand, that the leading Roman Catholic Nobility and Gentry in Ireland are mostly of English and Protestant extraction. Thus, the Brownes, Earls of Kenmare, came over originally in the reign of Queen Elizabeth, and, being Protestants, obtained large grants of The O'Donoghue property in Kerry, forfeited by Roderick O'Donoghue, in the reign of Elizabeth, and by Geoffrey O'Donoghue, "dead in Rebellion," in the reign of her successor. The Earls of Kenmare are now, as is well known, at the head of the Irish Roman Catholic peerage, and so of the Dillons, Plunkets, Burkes, Nugents, Prestons, and other Irish Roman Catholic families of importance; they are all, with few exceptions, of English and Protestant descent, while we have seen that the descendants of the native Irish are almost all Protestants.

RATES OF POSTAGE, MONEY ORDERS, NEWSPAPERS, &c.

Inland Letters to any part of the United Kingdom, if not exceeding half an ounce, are charged	1d.
Exceeding half an ounce, but not exceeding 1 ounce	2d.
" 1 ounce	4d.
" 2 ounces	6d.

And so on, an additional twopenny for every additional ounce, or fraction of an ounce.

Unstamped Letters are charged double postage on delivery. All Letters should be clearly addressed in a plain hand. The stamp should stand above the address, to the right hand of the writer.

If coin be inclosed in a letter, the letter will be charged double the fee of a Registered Letter.

Letters to go the same day into the Country must be put in at the Receiving Houses before half-past five p.m.; at the Branch Offices before six; or with an additional stamp before a quarter to seven. Letters are received at St. Martin's-le-Grand only until seven, by paying one penny extra; and until half-past seven by paying sixpence extra, or by placing stamps to that amount on the letter extra to the postage.

Within the Town limits there are eleven deliveries daily; the first or general despatch is made from St. Martin's-le-Grand at about 7.30 a.m., and the delivery is generally completed throughout London by nine o'clock. The last despatch is made at 7 p.m., and all letters for this delivery should bear the district initials to ensure delivery.

REGISTERED LETTERS.—Colonial letters, book-packets, &c., except those to Ascension, Vancouver, British Columbia, and Labuan, may be registered upon payment in money of a fee of 6d. over and above the postage. Letters only can be registered to certain foreign countries, but in many cases only to the port of despatch. Inland letters are charged 4d.

Registered Letters for France, and Countries through France, except those sent in the closed Mails to India, &c., are charged a fee equal in all cases to the postage. To Russia, Poland, and Italy, 6d. in addition to 4d. for every ½ oz. or fraction thereof. Registered Letters must be posted half an hour previous to ordinary Letters.

Stamped Newspapers from one Post Town to another within the United Kingdom, free, provided that they are folded with the Stamp outside, and posted within fifteen days of publication. India via Southampton, 2d. Newspapers to the Colonies, whether stamped or unstamped, 1d.; via any Foreign Country, 2d.

MONEY ORDERS are granted and paid at every Post Town in the United Kingdom:—3d. for sums not exceeding £2, and 6d. not exceeding £5, not exceeding £7, 9d., and £10, 1s. The Commission on Money Orders to the Colonies is fourfold these sums, and on Money Orders payable at Malta, or Gibraltar, threefold.

Payment of an Order must be obtained before the end of the second month, exclusive of the month the Order was issued in, or a fresh commission must be paid; under any circumstances an Order will not be paid after twelve clear months.

In case of the miscarriage or loss of a Money Order, a duplicate is granted on a written application (with the necessary particulars, and inclosing the amount of a second commission in postage-stamps) to the Comptroller of the Money-Order Office of the Kingdom where the Original Order was issued.

SAVINGS BANKS have now been established at most of the money-order offices. Deposits are received daily from 1s. upwards, and upon every complete pound yearly interest is given at the rate of £2 10s. per cent.

COLONIAL AND FOREIGN MAILS.—The Mails are made up for the United States every Saturday evening and Wednesday morning, 1s. Australia, New South Wales, New Zealand, Queensland, Tasmania, and Mauritius, via Southampton, 20th, M., 6d., 26th via Marseilles, E., 10d. under ½ oz. Canada, Thursday, E., 6d. (and Saturday, E., letters via United States, 8d.) Cape Coast Castle, Sierra Leone, 23rd, E. 6d. Cape of Good Hope, 5th, E., 1s. Ceylon (10d.) China, via Marseilles, 1s. 4d. 10th and 26th, E.; via Southampton, 4th and 20th, M., 1s. under ½ oz. (Ceylon, 6d.) Egypt and Malta (6d. under ½ oz.) India, via Marseilles, 10d. under ½ oz. 3d, 10th, 18th, 26th, E., (no Mails to Bombay or the North-West Provinces are forwarded on the 10th and 26th, or 4th and 20th); via Southampton, 4th, 12th, 20th, 27th, M., 6d. Gibraltar, M. and E. via France, 6d. under ½ oz. New Brunswick, Nova Scotia, alt. Sat. E. (6d.) or via United States, alt. Sat. E. (8d.) Newfoundland, Prince Edward Island, alt. Sat. E. 6d. Vancouver Island, (British Columbia), every Saturday, E. via New York, 1s. 2d., West Indies, British, 2nd and 17th M., 1s.

France and the Continent of Europe, via France, twice daily. Belgium and Continent of Europe, via Belgium, daily.

THE BOOK POST.—A Book, unstamped Newspaper (or stamped Newspaper more than fifteen days old), or any number of Books or Printed Letters from one Post Town to another, within the United Kingdom, in a cover open at the ends, not exceeding two feet in length, and not exceeding 4 oz. 1d.; not exceeding 8 oz. 2d.; not exceeding 16 oz. 4d.; and for every additional 8 oz. or fraction thereof, 2d. A Book-packet may contain any number of separate books or other publications (including printed letters, and printed matter of every kind); but no written letter is allowed in any case.

The privileges of the Book Post are now extended to the whole of the British Colonies and Settlements at the following rates:—To Ceylon, East Indies, Hong-Kong, Labuan, Mauritius, New Zealand, New South Wales, Queensland, S. and W. Australia, Tasmania, and Victoria, (via Southampton), 4oz. 4d., 8 oz. 8d., 1 lb. 1s. 4d., 1½ lb. 2s., &c. The weight of each packet to Queensland, or New South Wales is limited to 3 lb. To other places not exceeding 4 oz. 3d., 8 oz. 6d., 1 lb. 1s., 1½ lb. 1s. 6d., &c. Packets to any part of Cape Colony other than Cape Town, Port Elizabeth, or Mossel Bay must be addressed to the care of some one at either of these places.

PATTERN POST.—Between England and France.—1st. The Pattern must not be of intrinsic value. This rule excludes all articles of a saleable nature, wearing apparel, medicines, keys, and indeed whatever may have a value of its own, whether a money value or other, apart from its mere use as a Pattern. 2nd. The Patterns must bear only the address of the persons for whom they are intended, a manufacturer's or trade mark, numbers, and the prices of the articles. 3rd. The Patterns must be sent in covers open at the ends, so as to be easy of examination. Samples, however, of seeds, drugs, &c., which cannot be sent in open covers, may be inclosed in bags of linen, paper, or other material, tied at the neck with string. 4th. Articles such as the following are prohibited: Metal boxes, porcelain and China, fruit, vegetables, bunches of flowers, cuttings of plants, spurs, knives, scissors, needles, pins, pieces of machinery, sharp-pointed instruments, acids of all kinds, &c.

THE ILLUSTRATED LONDON ALMANACK FOR 1865

AUGUST.



SALMON-FISHING.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.			DURATION OF MOONLIGHT.										HIGH WATER AT				Day of Year.								
			Rises.	Souths after Noon.		Sets.	Rises. Aftern.	Sets. Aftern.		Before Sunrise.					Moon's Age.	After Sunset.					London Bridge.			Liverpool Dock.							
				H.	M.			H.	M.	H.	M.	O'Clock.	1	2		3	4	5	O'Clock.	7	8	9		10	11	Morn.	Aftern.	Morn.	Aftern.		
1	Tu	Lammas Day	4 25	6	27	46	2 45	11 51							10																
2	W	Battle of Blenheim, 1704	4 27	5	58	7 44	3 44	Morn.							11																
3	Th	Columbus embarked, 1492	4 28	5	54	7 43	4 39	0 36							12																
4	F	Day breaks 1h. 46m.	4 30	5	49	7 41	5 27	1 28							13																
5	S	Oyster Season commences	4 31	5	43	7 39	6 11	2 30							14																
6	S	8TH SUND. AFT. TRINITY	4 33	5	36	7 38	6 49	3 39							15																
7	M	Twilight ends 10h. 10m.	4 34	5	29	7 36	7 22	4 53							16																
8	Tu	Canning died, 1827	4 36	5	22	7 34	7 54	6 11							17																
9	W	Louis Philippe proclaimed, 1830	4 37	5	14	7 32	8 22	7 31							18																
10	Th	St. Lawrence	4 39	5	5	7 30	8 51	8 51							19																
11	F	Dog Days end	4 40	4	55	7 28	9 20	10 10							20																
12	S	Grouse-shooting begins	4 42	4	46	7 26	9 52	11 27							21																
13	S	9TH SUND. AFT. TRINITY	4 44	4	35	7 24	10 28	Aftern.							22																
14	M	Day breaks 2h. 18m.	4 45	4	24	7 23	11 12	1 52							23																
15	Tu	Twilight ends 9h. 45m.	4 47	4	13	7 21	Morn.	2 57							24																
16	W	Gas introduced, 1807	4 48	4	17	7 19	0 1	3 53							25																
17	Th	Charles X. arrived in England, 1830	4 50	3	49	7 17	0 57	4 40							26																
18	F	Mean Temperature, 60 deg.	4 52	3	36	7 15	1 57	5 21							27																
19	S	Bloomfield died, 1823	4 53	3	22	7 13	3 2	5 53							28																
20	S	10TH SUN. AFT. TRINITY	4 55	3	8	7 11	4 7	6 23							29																
21	M	Lady M. Montague died, 1762	4 56	2	54	7 8	5 13	6 48							30																
22	Tu	Battle of Bosworth, 1485	4 58	2	39	7 6	6 18	7 11							1																
23	W	Length of day 14h. 4m.	5 0	2	24	7 4	7 21	7 34							2																
24	Th	St. Bartholomew	5 1	2	8	7 2	8 25	7 57							3																
25	F	Day breaks 2h. 45m.	5 3	1	52	7 0	9 27	8 20							4																
26	S	Battle of Cressy, 1346	5 4	1	36	6 58	10 30	8 46							5																
27	S	11TH SUN. AFT. TRINITY	5 6	1	19	6 56	11 31	9 15							6																
28	M	St. Augustine	5 7	1	16	6 54	Aftern.	9 49							7																
29	Tu	Eglinton Tournament, 1839	5 9	0	44	6 51	1 30	10 29							8																
30	W	Twilight ends 8h. 57m.	5 10	0	26	6 49	2 25	11 16							9																
31	Th	Bunyan died, 1688	5 12	0	7	6 47	3 17	Morn.							10																

"THE REST," BY G. CHESTER.—FROM "THE ILLUSTRATED LONDON NEWS."



FERNS AND BUTTERFLIES.

JULY AND AUGUST.

WHAT can be pleasanter at this season of the year than a ramble in the woods in search of what may turn up, be it a fern, a bramble, a moth, or a butterfly—yes, even a snake, provided it be not a poisonous one; and, as there is but one kind in England at all to be dreaded—namely, the adder, we need not fear that very much. Yet to enjoy such a ramble fully it is necessary to understand in some measure what we see, and this can only be done by some general acquaintance with natural science. If it be thought impossible to include more than one branch of natural history in a general education, perhaps botany will be the most available, and give as much enjoyment to the possessor as any other. In the education of girls especially it seems that botany is of great value. The elevating and refining influence of such a study will not terminate with the individual herself, but will spread in ever-widening circles until it infuse a more healthy tone of feeling and a love of realities rather than forms into every rank of society. This has been sufficiently proved in the village school over which the late Professor of Botany in the University of Cambridge presided in his capacity of parish clergyman. The girls in that school all learned botany—they all knew the plants of their own district; the school-inspector reported that their attainments in other things were above the average, and it was a prize for the mother of a family to get a nursemaid out of that school. Kingsley has well said, "If we wish rural walks to do children any good, we must teach them, and we can teach them, to find wonder in every insect, sublimity in every hedgerow, the records of past worlds in every pebble, and boundless fertility upon the barren shore; and so, by teaching them to make full use of that limited sphere in which they now are, make them faithful in a few things that they may be fit hereafter to be rulers over much." In our country walks during these months we are sure to meet with our commonest British fern, the Polypody (*Polypodium vulgare*). Just as the common brakes seem to show the habitation of man, so does the polypody seem to flourish in his vicinity, establishing itself on church towers, old walls, or waving its bright green fronds above the cottage thatch. It has thick, woody, creeping roots. The fronds are about 6 in. to 1 ft. in height; they are always pendent in maturity, broadly oblong, and lanceolate in their general outline. The fructification is very conspicuous and usually at the upper part of the frond, in large circular patches of a golden yellow colour. It is somewhat parasitic in its habit and rejoices in the perishing trunk of some mighty tree, which it often crowns with joyous green—

A gilded halo hovering round doeny.

If in a sheltered spot, it will retain its verdure till December; but in an exposed situation it is easily destroyed by frosts. The leaves have a faint and somewhat disagreeable odour, and, if tasted, leave a rough and unpleasant feeling in the mouth. Several foreign species of polypody are however aromatic, and the fronds of some are used by the natives of the Sandwich Islands to give a perfume to the cocoanut oil with which they anoint themselves. Dr. Joseph Hooker mentions that during his residence in India he frequently partook of shrimp curry into which the young tops of the polypody entered.

Mr. Bennett, in his account of the South Sea Islands, mentions, among other ferns, a species of polypody which he found at Mahiatea, growing in abundance on a high mound built of coral stones. He says that the natives called it *Atua buna*, or pig's god, and believed it to exercise a watchful care over these animals. Like our common brakes and other ferns, the polypody contains a large quantity of carbonate of potash, which in former days was used by glass manufacturers. It had a great reputation in medicine on account of its mucilaginous nature. Mr. Newman says he has seen women collecting it in Herefordshire as a specific in whooping-cough. It is gathered in October and November, when full of seed; the barren fronds are rejected. It is then hung up in cottages to dry, and when required for use is slowly boiled with raw sugar. The poor people call it "maiden's hair," or "golden locks."

In Paris it is used at the present time as a domestic remedy for coughs and colds, and in some county districts there is a sort of superstition connected with its use—that it should be gathered from the oak and not from the shady hedgebank or other tree. The ancient reputation of this fern is very curious. Pliny recommends it for chaps on the toes; and further informs us that the root dried and powdered, if snuffed up the nose, will consume a polypus. It is doubtless the "rheum-purging polypody" of our own Shakespeare.

Several variations occur in the form of the common polypody, the lobes being more or less cleft, or acute, or serrated. In the Welsh polypody—*P. w. Cambrium*—the lobes are broader, and irregularly lobed or toothed. The Irish polypody, or *P. v. Hibernicum*, has a broader twice or thrice pinnate frond, and is exceedingly handsome. This fern repays all the trouble taken to cultivate it. It is somewhat difficult to remove from its natural positions, as its roots are apt to become firmly entwined with the substances on which it may be growing. In a greenhouse it is a remarkably striking and beautiful object when suspended in a basket, which should be always of wood, and made very open. The basket and suspending wire being prepared, the rhizomes should be arranged therein in such a manner that the fronds may pass through the holes at the bottom, and that the growing points of the rhizomes may also have the opportunity of doing so. The rhizomes should then be covered with a thin layer of sphagnum, a moss always to be found in boggy places, and which never becomes mouldy; next cover the sphagnum with a mixture of well-decayed leaf-mould and silver-sand; and then arrange a second layer of sphagnum, then another of rhizomes, on which carefully fasten wooden crossbars, and the basket will be complete. Immerse the whole in soft water until it is thoroughly saturated and then hang it in its final destination. This should be done in April, before any young fronds have appeared. In June and July young fronds will emerge through all the apertures in the basket and arrange themselves gracefully around it. The last year's fronds, which, up to this period, are unsightly, will now fall off. The basket should hang in a free circulation of air. All covering, except that afforded by a greenhouse with open doors and windows, should be avoided; exclude violent draughts of wind, but admit plenty of fresh air. Out of doors, in a rockery or on stamps of trees, the polypody forms a pleasing object, and it is well to neglect no opportunity of securing it early in the year if possible, with the substance on which it is growing, be it rock or the head of some old pollard; it may be thus transplanted uninjured to your garden. To those who indulge in woodland rambles, the inconvenience of a conventional mode of dress must often be apparent; yet we are inclined to think that, troublesome as is the expanded form of female attire now so universal under many circumstances, the possibility of looping the upper dress in graceful festoons, and leaving the feet unfettered and free, was never so great. Who that has trodden a dusty road or a wooded meadow in the days when ladies took especial care to hide their ankles from mortal gaze

does not remember the constant demand to be set free from "lovers," or "lawyers," or whatever might be the chosen name for those straggling, many-hooked bits of bushes which are strewn about from neighbouring hedges? The plant figured in our Plate is the common bramble or blackberry, and often supplies the troublesome "followers" which so pertinaciously cling to long garments. Botanists know the blackberry under the name of *Rubus fruticosus*, and describe it as having long arched angular stems, furnished with strong, hooked prickles, which bear at their extremities, the second year, clusters of pink or white flowers, followed by the well-known fruit, reddish when unripe, but gradually becoming deep purple or black. The varieties are so numerous, and differ so much in appearance that many botanists regard them as distinct species, of which they reckon above forty; but there are almost all gradations between them, and most present such a strong resemblance as scarcely to be distinguished by the ordinary observer. During the months of July and August we find the hedges filled with the blossoms of the bramble, which, mixed with those of the wild rose and the honeysuckle, and with the twining branches of the large white convolvulus and beautiful bryony, form a truly English rural sight, one which, in after life, will often recall to the wayworn and tired citizen of the world thoughts of the peaceful country home and village friends he had wellnigh forgotten in the battle of life. The bramble, we are told, is never planted in Scotland, and is only occasionally found in hedges, in consequence of being sown there by birds. It is later in the year, however, that the true festival of the brambles begins. In September and October, when the fruit has ripened, comes in the blackberry season. Then may be seen parties of bright young faces sallying forth with crooked sticks and capacious baskets in hand, to return at the close of day laden with the purple fruit and with mouths and fingers dyed of the same hue. Who has not enjoyed and taken part in such excursions, and who cannot recollect the early lesson of pleasure being mingled and seasoned with pain in the scratched hands and torn dresses consequent on the occasion? Yet who would have willingly given up the next opportunity for a similar enterprise, or have recklessly trodden on cook's toe during the blackberry season, lest—instead of the delicious tarts she condescended to make of the produce of those excursions, delicately mingled with slices of apple, and far more prized than any ordinary dainty—she should have turned crusty herself and voted the black treasures so much "rubbish"? Had she been a Scotch cook, indeed, she might have appropriated the fruit to her own uses, and, boiling it with sugar, have manufactured a delicious preserve, known as "rob," for which, however, the juvenile appetite might be condemned to wait till the winter stores were commenced. In some parts of England the blackberry fruits are called "bumblekites," or "scaldberries," from the notion that they give "scaldhead" to children. We have no such idea, however, as they have certainly been eaten by children ever since the time of Pliny. The berries are sometimes used to make an inferior kind of wine and to colour better sorts. The red muscat of Toulon owes its tint to the juice of the blackberry. The fruit is occasionally used in rural districts for dyeing, and the young shoots of the plant yield a good black dye with salts of iron. The long, flexible shoots are used for binding thatch. Beeswax were frequently made of them in former times, and it is found that silkworms will feed on the leaves. In the hot summer of 1858 a number of silkworms were hatched on some brambles in Kent, probably from eggs accidentally thrown there. The silk produced by these caterpillars was of good quality. They seemed to have fed on various wild plants in the vicinity besides brambles. It might be worth experiment to try whether these creatures could be successfully reared on bramble leaves during an ordinary season. Ruskin, the great exponent of the connection between Nature and Art, says:—"For one man who is fitted for the study of words, fifty are fitted for the study of things, and were intended to have a perpetual, simple, and religious delight in watching the processes or admiring the creatures of the natural universe."

Not many of the lepidoptera of Great Britain can be said to be of any economical use to man. But shall we say that creatures known only to us for their beauty are devoid of absolute use in the economy of nature? For all the purposes of food which they supply to birds and such creatures, the butterfly would be equally available were it clothed in the dingiest dress imaginable; but colour is of infinite delight to the eyes of man, and we are disposed to think that the great Creator of the universe did not forget this new sense of gratification when he formed the lower creatures to live in the world with man, His highest work. We may fairly rank amongst those gifts of the Creator—not essential to the existence of his works, but bestowed to enhance their enjoyment—those pleasures for the eye which are connected with the colouring properties of light. But for these, what a sombre world should we be in! "If," says Sir David Brewster, "the objects of the material world had been illuminated with white light, all the particles of which possessed the same degree of refrangibility, and were equally acted upon by the bodies on which they fall, all Nature would have shown with a leaden hue, and all the combinations of all external objects, and all the features of the human countenance, could have exhibited no other variety than that which they would possess in a pencil sketch or an Indian-ink drawing; but He who has exhibited such matchless skill in the organisation of material bodies, and such exquisite taste in the forms upon which they are modelled, has superadded the ethereal beauty which enhances their more permanent qualities, and presents them to us in the ever-varying colours of the spectrum." Some naturalists tell us that there is even a deeper meaning in the colouring of the animal creation than appears at first sight, and that the various hues in which they are clothed serves as a shield and protection to them against many of their foes. The delicate-veined leaflet or petal so closely resembles the brilliant wings of some of our lepidoptera that we can understand how they suggested Wordsworth's lines in his garden:—

The butterfly, all green and gold,
To me has often flown,
Here in my blossoms to behold
Wings lovely as his own.

There is the beautiful little butterfly of our Plate known as the corn blue or Clifden blue (*Polyommatus adonis*), with black bordered wings of silvery azure shining with a metallic lustre, and the usual ocellated spots which characterise the genus, the name of which is derived from a Greek word signifying many eyes. The female wears more sombre array, and is of a brown colour, each wing having a pale central spot. This butterfly is nearly related to the lovely little "Corydon," which, like a true shepherd, wears his brown Phyllis on the upland downs.

We have also in our Plate the Burnet moth (*Anthrocera*), of which there are several species. We have the six-spotted Burnet moth, and the five-spotted Burnet moth. They resemble each other, but the latter species, besides having the smallest number of spots, is the smallest in size. They are found on grasses and other common plants, and the smaller one is frequently found on the honeysuckle. Their colours are very brilliant—bluish black and bright red, the latter hue predominating on the lower wings and forming spots on the upper.

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

ASTRONOMICAL OCCURRENCES.

JANUARY.

THE SUN is at its shortest distance from the Earth at midnight of Jan. 1. It is situated south of the Equator, and moving northward. It passes from the sign of Capricornus to that of Aquarius on Jan. 19 at 11h. 39m. p.m.

The MOON is near Mars at 0h. 44m. a.m. of the 8th; near Uranus at 11h. 44m. p.m. of the 9th; near Saturn at 4h. 32m. a.m. of the 20th; near Jupiter at 0h. 59m. a.m. of the 24th; near Mercury at 2h. 42m. p.m. of the 25th; and near Venus at 5h. 27m. p.m. of the 30th. It is most distant from the Earth at 6h. a.m. of the 17th, and nearest at 3h. a.m. of the 29th.

First Quarter occurs at 43 minutes past 3 on the afternoon of the 4th.
Full Moon " 0 " 11 on the night of the 11th.
Last Quarter " 36 " 2 on the morning of the 20th.
New Moon " 30 " 9 on the morning of the 27th.

MERCURY remains in the constellation of Sagittarius throughout the month. It is in perihelion at 10h. 49m. p.m. of Jan. 2; in inferior conjunction with the Sun at 5h. 25m. a.m. of the 8th; at its greatest heliocentric north latitude at 6h. 19m. a.m. of the 12th; stationary at 8h. 3m. a.m. of the 19th; south of the Moon at 2h. 42m. p.m. of the 25th; close to Xi (2) Sagittarii at 8h. 38m. p.m. of the same day; close to Pi Sagittarii at 6h. 23m. p.m. of the 26th; remaining near Xi (2) Sagittarii until the morning of the 27th, when it is a little east of the star (4 minutes 2 seconds in time). It arrives at its greatest westerly elongation at 10h. 49m. a.m. of the 31st of the month. It rises at 8h. 50m. a.m. of Jan. 1, and at 6h. 23m. a.m. of Jan. 31; setting at 5h. 13m. p.m. and 2h. 34m. p.m. respectively.

VENUS is situated in the constellation of Capricornus at the beginning, and in that of Pisces at the end of the month. It is best seen at the end of the month. It rises at 10h. 15m. a.m. on Jan. 1, and at 9h. 10m. a.m. on Jan. 31; setting respectively at 7h. 32m. p.m. and 9h. p.m. at those dates. It is a little directly west of Iota Aquarii at 4h. 13m. p.m. of the 4th, and directly east of Sigma Aquarii at 10h. 43m. p.m. of the 11th. It is again directly a little east of Lambda Aquarii at 6h. 45m. a.m. of the 18th, and slightly to the west of Phi Aquarii at 7h. 48m. a.m. of the 21st. It is a little to the south of the Moon at 5h. 27m. p.m. of the 30th.

MARS is in the constellation of Taurus throughout the month, and is visible during the evening and night. It rises at 0h. 56m. p.m. of the 1st, and at 11h. 9m. a.m. of the 31st; setting at those times respectively at 5h. 27m. a.m. and 3h. 49m. a.m. It arrives at its stationary point at 0h. 48m. p.m. of the 5th, and is a little to the north of the Moon at 44 minutes past midnight of the 7th.

JUPITER is a little to the south of the Moon at 0h. 59m. a.m. of the 24th. It remains in the constellation of Ophiuchus throughout the month. It is visible as a morning star in the S.E., rising at 6h. 12m. a.m. of the 1st, and at 4h. 43m. a.m. of the 31st; setting at 2h. 13m. p.m. and 0h. 38m. p.m. respectively at those times.

SATURN is in quadratures with the Sun at 0h. 5m. a.m. of the 20th; is a little to the north of the Moon at 4h. 32m. a.m. of the 20th. It remains in the constellation of Virgo throughout the month. It rises at 1h. 50m. a.m. of Jan. 1, and at 11h. 54m. p.m. of the 31st, setting at those times at 0h. 27m. p.m., and 10h. 31m. a.m. respectively.

URANUS is on the confines of Taurus and Orion throughout the month, and is visible during the evening and night, southing at the middle of the month at 10h. p.m., and being high north declination. It is a little to the north of the Moon at 11h. 44m. p.m. of the 9th.

NEPTUNE is visible during the evening, southing at 5h. 38m. p.m. of the beginning of the month.

OCCULTATIONS OF STARS BY THE MOON.—Epsilon Piscium, 4th magnitude, on Jan. 4; disappears at 5h. 53m. p.m.; reappears at 6h. 59m. p.m.; angles from vertex (reckoned towards the right hand round the circumference of the Moon's image), in an inverting telescope, 86 deg. and 334 deg. respectively. ϵ Tauri, $\frac{1}{2}$ magnitude, Jan. 8, disappears at 8h. 45m. p.m.; reappears at 0h. 24m. p.m.; angles from vertex, 24 and 334 deg. respectively.

ECLIPSES OF JUPITER'S SATELLITES.—Jan. 14, at 6h. 56m. a.m., 3rd satellite disappears.

FEBRUARY.

THE SUN is situated south of the Equator this month, and moving northward. It passes from the sign of Aquarius to that of Pisces on Feb. 18 at 2h. 15m. p.m.

The MOON is a little to the south of Mars at 3h. 14m. p.m. of the 4th; to the south of Uranus at 4h. a.m. of the 6th; to the south of Saturn at 0h. 16m. p.m. of the 16th; to the north of Jupiter at 7h. 11m. p.m. of the 20th; to the north of Mercury at 7h. 10m. p.m. of the 24th; and to the south of Venus at 2h. 2m. a.m. of the 29th. It is most distant from the Earth at 9h. p.m. of the 13th, and nearest at noon of the 26th.

First Quarter occurs at 9 minutes past 1 on the morning of the 3rd.
Full Moon " 27 " 4 on the evening of the 10th.
Last Quarter " 38 " 9 on the evening of the 18th.
New Moon " 3 " 8 on the evening of the 25th.

MERCURY is in the constellation of Sagittarius at the beginning, and in that of Aquarius at the end of the month. It rises at 6h. 24m. a.m. on Feb. 1, setting at 2h. 34m. p.m. On Feb. 28 it rises at 6h. 38m. a.m. and sets at 4h. 2m. p.m. It is at its greatest distance from the Sun at 10h. 28m. p.m. of the 15th. It is to the south of the Moon at 7h. 10m. p.m. of the 24th.

VENUS is a little and directly to the east of Delta Piscium at 10h. 13m. p.m. of the 16th, and a little to the west of Epsilon Piscium at 1h. 17m. p.m. of the 17th. It is very favourably situated for observation this month, although its low latitude prevents it from being seen so well in northern latitudes. It arrives at its greatest easterly elongation at 6h. a.m. of the 25th. It is a little to

the north of the Moon at 2h. 2m. a.m. of March 1. It is in the constellation of Pisces throughout the month. On Feb. 1 it rises at 9h. 7m. a.m., setting at 9h. 3m. p.m.; and on Feb. 28 rises at 7h. 55m. a.m., and sets at 10h. 9m. p.m.

MARS is a little to the north of the Moon at 3h. 14m. p.m. of the 4th. It is almost stationary in the constellation of Taurus throughout the month, and its ruddy colour and brilliancy can be readily compared with that of Alpha Tauri (Aldebaran), whose position is about eight degrees south.

JUPITER is about three degrees south of the Moon at 7h. 11m. p.m. of the 20th. It is in the constellation of Ophiuchus at the beginning, and on the confines of Sagittarius and Ophiuchus at the end of the month. On Feb. 1 it rises at 4h. 40m. a.m., and on the 28th at 3h. 14m. a.m., setting at those times respectively at 0h. 35m. p.m. and 11h. 5m. a.m. It will be seen in the south-east in the early morning; but as it is nearly at its greatest southerly declination, it will not be favourably seen in those latitudes.

SATURN remains in the constellation of Virgo throughout this month. It rises at 11h. 50m. p.m. of Feb. 1, and at 10h. 2m. p.m. of the 28th, setting at those times at 10h. 27m. and 8h. 41m. a.m. respectively. It will be noticed in the south-east during the evenings at the latter end of the month. It arrives at its stationary point at 4h. 36m. p.m. of the 8th, and is a little to the north of the Moon at 0h. 16m. p.m. of the 16th.

URANUS is still visible, during the evenings and nights, southing at 8h. p.m. of the 14th. It is situated on the borders of Gemini, Taurus, and Orion. It is a little to the north of the Moon at 4h. a.m. of the 6th.

NEPTUNE is in the constellation of Pisces; and is now too near the Sun to be well seen, and sets shortly after nine in the evening.

OCCULTATIONS OF STARS BY THE MOON.—Kappa Cancri, 5th magnitude, on Feb. 10, disappears at 0h. 42m. a.m.; reappears at 2h. a.m.; angles from vertex, 77 and 280 deg. respectively.

ECLIPSES OF JUPITER'S SATELLITES.—Feb. 5, at 6h. 40m. a.m., second satellite disappears; Feb. 15, at 5h. 55m. a.m., first satellite disappears; Feb. 19, at 5h. 2m., third satellite reappears.

MARCH.

THE SUN is situated south of the Equator and in

the sign of Pisces until March 20, at 2h. 6m., when it passes into that of Aries; is then north of the Equator, and the Spring Quarter commences.

The MOON is a little to the south of Mars at 5h. 11m. p.m. of the 4th; to the south of Uranus at 9h. 3m. a.m. of the 5th; to the south of Saturn at 4h. 54m. p.m. of the 15th; to the north of Jupiter at 8h. 52m. a.m. of the 20th; to the north of Mercury at 10h. 51m. p.m. of the 27th; and to the south of Venus at 0h. 24m. a.m. of the 30th. It is most distant from the Earth at 2h. a.m. of the 13th, and nearest at midnight of the 26th.

First Quarter occurs at 19 minutes past noon of the 4th.

Full Moon occurs at 42 minutes past 10 on the morning of the 12th.
Last Quarter " 36 " noon of the 20th.
New Moon " 28 " 5 on the morning of the 27th.

MERCURY is too near the Sun throughout this month to be well seen, the best times for viewing it being at the beginning and end of the month. On March 1 it rises at 6h. 37m. a.m. and sets at 4h. 8m. p.m., and on March 31 it rises at 5h. 57m. a.m., setting at 7h. 49m. p.m. It is in the constellation of Aquarius at the beginning, and in that of Pisces at the end of the month. It is in superior conjunction with the Sun at 7h. 36m. a.m. of the 18th, in conjunction with the Moon (a little south) at 10h. 51m. p.m. of the 27th, and at its shortest distance from the Sun at 10h. 5m. p.m. of the 31st.

VENUS is in the constellation of Pisces at the beginning, and in that of Aries at the end of the month. On March 1 it rises at 7h. 52m. a.m., and on March 31 at 6h. 17m. a.m., setting at 10h. 10m. p.m. on the former occasion, and at 10h. 48m. p.m. on the latter. It is at its shortest distance from the Sun at 0h. 32m. p.m. of the 8th., a little to the west of Epsilon Arietis at 6h. 58m. a.m. of the 22nd, and a little to the north of the Moon at 0h. 24m. a.m. of the 30th. It will be seen very favourably in the north-west throughout the evening, and will be shining very brightly at the latter part of the month.

MARS is in the constellation of Taurus at the beginning, and in that of Gemini at the end of the month. It is visible until after midnight throughout March, setting on the 1st and 31st respectively at 2h. 48m. a.m. and 1h. 59m. a.m., and rising respectively at those times at 9h. 52m. a.m. and 8h. 53m. a.m. It arrives in quadrature with the Sun at 7h. 48m. a.m. of the 10th. It is a little to the north of the Moon at 5h. 11m. p.m. of the 4th, and a little to the north of Uranus at 2h. 22m. p.m. of the 22nd.

JUPITER arrives in quadrature with the Sun at 9h. 3m. a.m. of the 18th; is a little to the south of the Moon at 8h. 52m. a.m. of the 20th. It rises at 3h. 10m. a.m. of March 1, and at 1h. 24m. a.m. of the 31st, setting at 11h. 2m. a.m. and 9h. 15m. a.m. respectively. It is in the constellation of Sagittarius.

SATURN remains in the constellation of Virgo throughout the month. It rises at 9h. 58m. p.m. of March 1, and at 7h. 51m. p.m. of the 31st, setting at those times at 8h. 37m. a.m. and 6h. 35m. a.m. It is a little to the north of the Moon at 4h. 34m. p.m. of the 15th.

URANUS arrives at its stationary point at midnight of the 2nd. It is a little to the north of the Moon at 9h. 3m. a.m. of the 5th, and is in quadratures with the Sun at 2h. 8m. a.m. of the 16th. It is in the constellation of Taurus, and does not set till past midnight.

NEPTUNE is in the constellation of Pisces, but too near the Sun to be well seen.

OCCULTATIONS OF STARS BY THE MOON.—March 3, Delta (3) Tauri, 5th magnitude; disappears at 10h. 16m. p.m.; reappears at 11h. 2m. p.m.; angles from vertex, 93 and 350 deg. respectively. March 7, Lambda Geminorum, $\frac{3}{4}$ magnitude; disappears at 2h. 15m. a.m.; reappears at 3h. 3m. a.m.; angles from vertex, 148 and 264 deg. respectively.

ECLIPSES OF JUPITER'S SATELLITES.—March 26, at 4h. 20m. a.m., 1st satellite disappears.

(Continued on page 44.)

SEPTEMBER.



PARTRIDGE SHOOTING.

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"THE TIME AND PLACE," BY J. PETTIE.—FROM "THE ILLUSTRATED LONDON NEWS."

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

APRIL.

THE SUN is north of the Equator and in the sign of Aries until April 20 at 2h. 11m. a.m., when it passes into that of Taurus.

THE MOON is a little to the south of Uranus at 4h. 56m. p.m. of the 1st; to the south of Mars at 2h. 41m. a.m. of the 2nd; it is eclipsed on the night of the 10th and the morning of the 11th. It is a little to the south of Saturn at 7h. 1m. p.m. of the 11th; to the north of Jupiter at 4h. 55m. p.m. of the 16th; to the south of Mercury at 6h. 45m. a.m. of the 26th; to the south of

Venus at 4h. 37m. p.m. of the 26th; to the south of Uranus at 3h. 49m. a.m. of the 29th; and to the south of Mars at 4h. 53m. p.m. of the 30th. It is most distant from the Earth at 4h. a.m. of the 9th, and nearest at 10h. a.m. of the 24th.

First Quarter occurs at 19 minutes past	1	on the morning of the 3rd.
Full Moon	28	" 4 on the morning of the 11th.
Last Quarter	20	" 11 on the night of the 18th.
New Moon	13	" 2 on the afternoon of the 25th.

MERCURY is well seen towards the middle of the month, being at a con-



APPEARANCE AND MAGNITUDE OF SATURN'S RING, 1865.

siderable altitude, and both rising early and setting late. On April 1 it rises at 5h. 55m. a.m., setting at 7h. 55m. p.m., and on April 30 rising at 4h. 38m. a.m., and setting at 7h. 48m. p.m. It is in the constellation of Pisces at the beginning, and in that of Aries at the end, of the month. It arrives at its greatest easterly elongation at 6h. 52m. p.m. of the 12th; is at its stationary point at 2h. 3m. a.m. of the 23rd; and a little north of the Moon at 6h. 45m. a.m. of the 26th.

VENUS is now very favourably seen arriving at its greatest brilliancy on April 2. It is stationary at 4h. 33m. p.m. of the 16th; and is eight degrees north of the Moon at 4h. 37m. p.m. of the 26th. It is in the constellation of Aries throughout the month. It rises at 6h. 15m. a.m. on April 1, and at 4h. 22m. on April 30; setting on the former time at 10h. 47m., and on the latter at 8h. 52m. It will be seen (as the evening star) in the north-west heavens.

MARS is in the constellation of Gemini throughout the month, and is visible during the evenings in the north-west. It rises at 8h. 51m. a.m. on April 1, and at 8h. 16m. a.m. of the 30th, setting at 1h. 57m. a.m. and at 1h. 1m. a.m. respectively. It is a little to the north of the Moon at 2h. 41m. a.m. of the 2nd, and at 4h. 53m. p.m. of the 30th.

JUPITER arrives at its stationary point at 9h. 5m. a.m. of the 15th, and is a little to the south of the Moon at 4h. 55m. p.m., of the 16th. It is in the constellation of Sagittarius throughout the month. It rises at 1h. 21m. a.m. of the 1st, and at 11h. 22m. p.m. of the 30th, setting at 9h. 11m. a.m. and 7h. 17m. a.m. respectively. It is badly seen, being low down.

SATURN remains in the constellation of Virgo. It rises at 7h. 46m. p.m. of the 1st, and at 5h. 39m. p.m. of the 30th, setting at 6h. 31m. a.m. and 4h. 34m. a.m. respectively. It is a little north of the Moon at 7h. 1m. p.m. of the 11th, and is in opposition at 0h. 32m. a.m. of the 17th. It is now favourably seen.

URANUS is a little to the north of the Moon at 4h. 56m. a.m. of the 1st, and at 3h. 49m. a.m. of the 29th. It is in the constellation of Taurus, and is visible during the evenings.

NEPTUNE is now invisible, being too near the Sun.

OCCULTATIONS OF STARS BY THE MOON.—April 12, Alpha (2) Libræ of

24 magnitude; disappears at 10h. 51m. p.m.; reappears at 11h. 59m. p.m.; angles from vertex, 19 and 266 deg. respectively. April 18, Rho (1) Sagittarii of 4th magnitude; disappears at 1h. 57m. a.m.; reappears at 3h. 8m. a.m.; angles from vertex, 56 and 264 deg. April 19, Beta Capricorni of 3rd magnitude; disappears at 4h. 41m. a.m.; reappears at 5h. 27m. a.m.; angles from vertex, 141 and 223 deg. respectively.

ECLIPSES OF JUPITER'S SATELLITES.—April 3, at 2h. 31m. a.m., third satellite disappears. April 3, at 3h. 35m. a.m., second satellite disappears. April 11, at 2h. 35m. a.m., first satellite disappears.

MAY.

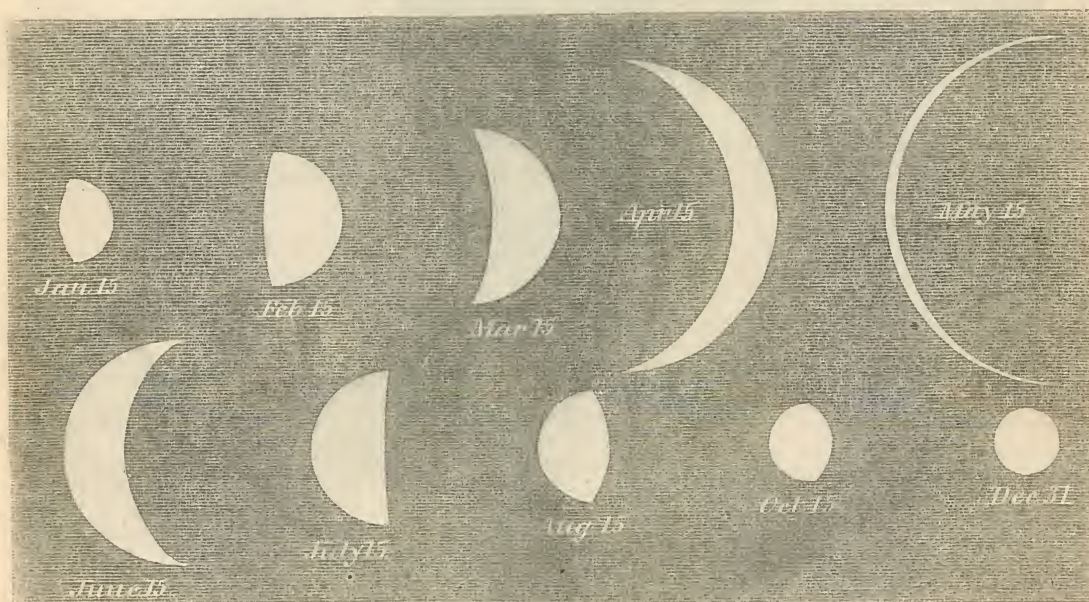
THE SUN is north of the Equator and in the sign of Taurus until May 21 at 2h. 16m. a.m., when it passes into that of Gemini.

THE MOON is a little to the south of Saturn at 9h. 41m. p.m. of the 8th; to the north of Jupiter at 8h. 8m. p.m. of the 13th; to the south of Venus at 6h. 54m. a.m. of the 23rd; to the north of Mercury at 8h. 13m. a.m. of the 23rd; to the south of Uranus at 4h. 18m. p.m. of the 26th; and to the south of Mars at 9h. 40m. a.m. of the 29th. It is most distant from the Earth at 4h. p.m. of the 6th, and nearest to it at noon of the 22nd.

First Quarter occurs at 4 minutes past	4	on the afternoon of the 2nd.
Full Moon	23	" 8 on the evening of the 10th.
Last Quarter	39	" 6 on the morning of the 18th.
New Moon	49	" 10 on the evening of the 24th.

MERCURY is in inferior conjunction to the Sun at 11h. a.m. of the 3rd; at its greatest distance from the Sun at 9h. 45m. p.m. of the 14th; arrives at its stationary point at 5h. 20m. p.m. of the 15th; is in conjunction and a little south of Venus at 2h. 13m. a.m. of the 22nd; is a little south of the Moon at 8h. 13m. of the 23rd; and at its greatest westerly elongation at 2h. 25m. p.m. of the 30th. It rises at 4h. 35m. a.m. on May 1, setting at 7h. 39m. p.m.; and on May 31 it rises at 2h. 12m. a.m., setting at 5h. 32m. p.m. It is in the constellation of Aries throughout the month.

VENUS is seen to most advantage as the morning star at the end of the month. It remains in the constellation of Aries throughout May. On May 1 it rises at 4h. 18m. a.m.; on May 31 at 2h. 39m. a.m., setting at those times



RELATIVE MAGNITUDES OF THE CRESCENT OF VENUS, 1865.

respectively—at 8h. 45m. p.m. and at 5h. 7m. p.m. It is in inferior conjunction with the Sun at 1h. 48m. a.m. of the 8th; is a little to the north of the Moon at 6h. 54m. a.m. of the 23rd; and is stationary at 8h. p.m. of the 27th. It is a little directly south of Mercury at 2h. 13m. a.m. of the 22nd.

MARS is a little to the north of the Moon at 9h. 40m. a.m. of the 29th, and at its shortest distance from the Sun at 10h. 9m. a.m. of the 31st. It is in the constellation of Gemini at the beginning, and in that of Cancer at the end, of

the month. It rises at 8h. 15m. a.m. on the 1st, and at 7h. 53m. a.m. on the 31st, setting at 1h. 0m. a.m. and 11h. 49m. p.m. respectively.

JUPITER remains in the constellation of Sagittarius throughout May. It rises at 1h. 18m. p.m. of the 1st, and at 9h. 8m. p.m., of the 31st, setting at 7h. 13m. a.m. and 5h. 4m. a.m. respectively. It is a little to the south of the Moon at 8h. 8m. p.m. of the 13th.

SATURN is a little to the north of the Moon at 9h. 41m. p.m. of the 8th. It

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

still continues in the constellation of Virgo. It rises at 5h. 35m. p.m. of the 1st, and at 3h. 27m. p.m. of the 31st; setting at 4h. 30m. a.m. and 2h. 29m. a.m. respectively.

URANUS is still visible in the evenings in the constellation of Taurus. It is a little north of the Moon at 4h. 18m. p.m. of the 26th.

NEPTUNE is still invisible, rising at about 2h. a.m. of May 31.

OCCULTATIONS OF STARS BY THE MOON.—May 2, Kappa Cancri, of 5th magnitude; disappears at 7h. 53m. p.m.; reappears at 8h. 37m. p.m.; angles from vertex, 143 and 222 deg. respectively.

ECLIPSES OF JUPITER'S SATELLITES.—May 4, at 2h. 45m. a.m., first satellite disappears; May 5, at 2h. 34m. a.m., second satellite disappears; May 9, at 0h. 49m. a.m., third satellite reappears; May 16, at 2h. 19 a.m., third satellite disappears; May 20, at 1h. 1m. a.m., first satellite disappears; May 29, at 11h. 32m. p.m. second satellite disappears.

JUNE.

THE SUN is in the sign of Gemini until June 21 at 10h. 45m. a.m., when it passes into that of Cancer, and the Summer Quarter commences.

THE MOON is a little to the south of Saturn at 2h. 12m. a.m. of the 5th; to the north of Jupiter at 9h. 6m. p.m. of the 9th; to the north of Venus at 2h. 48m. a.m. of the 20th; to the south of Mercury at 10h. 37m. a.m. of the 22nd; to the south of Uranus at 4h. 29m. a.m. of the 23rd; and to the south of Mars at 5h. 34m. a.m. of the 27th. It is at its greatest distance from the Earth at 4h. a.m. of the 3rd, and at its least at 4h. p.m. of the 15th.

First Quarter occurs at 22 minutes past	8	on the morning of the 1st.
Full Moon	41	" 9 on the morning of the 9th.
Last Quarter	53	" 11 on the morning of the 16th.
New Moon	57	" 7 on the morning of the 23rd.

MERCURY is in the constellation of Aries at the beginning, and in that of Gemini at the end, of the month. It rises at 3h. 10m. a.m. at the beginning, setting at 5h. 32m. p.m., and on the 30th rises at 3h. 31m. a.m., setting at 8h. 21m. p.m. It is best seen at the beginning of the month. It is a little to the north of the Moon at 10h. 37m. a.m. of the 22nd; is close to Uranus at 7h. 29m. a.m. of the 27th, and is at its shortest distance from the Sun at 9h. 25m. p.m. of the 27th.

VENUS arrives at its greatest (morning) brilliancy on the 13th, but the length of the day and morning twilight will prevent it from being such a conspicuous object as it would otherwise appear. It is a little to the south of the Moon at 3h. 48m. a.m. of the 20th, and at its greatest distance from the

Sun at 10h. 56m. p.m. of the 28th. It is in the constellation of Aries at the beginning, and in that of Taurus at the end, of the month. It continues to be the morning star, rising at 2h. 56m. a.m. at the beginning, and at 1h. 34m. a.m. at the end, of the month, setting at those times at 5h. 4m. p.m. and 4h. 20m. p.m. respectively.

MARS is in the constellation of Cancer at the beginning, and in that of Leo at the end, of the month. It is still visible in the evening at the beginning of the month, setting in the N.W. It rises at 7h. 52m. a.m. of June 1, and at 7h. 41m. a.m. of June 30; setting respectively at 11h. 46m. p.m. and 10h. 28m. p.m. It is a little to the north of the Moon at 5h. 34m. a.m. of the 27th.

JUPITER is in opposition and nearest the Earth at 6h. 58m. a.m. of the 15th. It is a little south of the Moon at 9h. 6m. p.m. of the 9th. It is in the constellation of Ophiuchus throughout the month. It rises at 9h. 4m. p.m. of the 1st and at 6h. 54m. p.m. of the 30th, setting at 5h. a.m. and 2h. 51m. a.m. respectively.

SATURN continues in the constellation of Virgo, and is visible throughout the evening. It rises at 5h. 23m. p.m. on the 1st, and at 1h. 27m. p.m. of the 30th, setting at 2h. 24m. a.m. and 0h. 28m. a.m. respectively. It is a little to the north of the Moon at 2h. 12m. a.m. of the 5th, and is stationary at 4h. 13m. p.m. of the 27th.

URANUS is now too near the Sun to be visible. It is in conjunction with the Sun on June 21.

NEPTUNE does not rise until after midnight.

OCCULTATIONS OF STARS BY THE MOON.—June 18, Zeta Piscium, 4th magnitude, disappears at 1h. 40m. a.m.; reappears at 2h. 5m. a.m.; angles from vertex, 11 deg. and 312 deg. respectively.

ECLIPSES OF JUPITER'S SATELLITES.—June 4, 11h. 18m. p.m., first satellite disappears; June 6, 2h. 6m. a.m., second satellite disappears; June 12, at 1h. 12m. a.m., first satellite disappears; June 20, at 11h. 46m. p.m., first satellite reappears; June 21, at 0h. 45m. a.m., third satellite reappears; June 23, at 11h. 1m. p.m., second satellite reappears.

JULY.

THE SUN is in the sign of Cancer until 9h. 40m. p.m. of the 22nd, when it passes into that of Leo. It is north of the Equator throughout the month, and moving southward.

THE MOON is a little to the south of Saturn at 9h. 14m. a.m. of the 2nd; to the north of Jupiter at 11h. 0m. p.m. of the 6th; close to Venus at 2h. 29m. a.m. of the 19th; a little to the south of Uranus at 5h. 2m. p.m. of the 20th;



RELATIVE DIMENSIONS OF DISC OF JUPITER, 1865.

to the south of Mercury at 6h. 35m. p.m. of the 24th; to the south of Mars at 9h. 47m. p.m. of the 25th; and to the south of Saturn at 6h. 34m. p.m. of the 29th. It is at its greatest distance from the Earth at 3h. a.m. of the 1st, and 10h. p.m. of the 25th, and at its least distance at 7h. p.m. of the 13th.

First Quarter occurs at 40 minutes past	1	on the morning of the 1st.
Full Moon	27	" 8 on the evening of the 8th.
Last Quarter	26	" 4 on the afternoon of the 15th.
New Moon	29	" 6 on the afternoon of the 22nd.
First Quarter	9	" 7 on the afternoon of the 30th.

MERCURY arrives in superior conjunction to the Sun at 8h. p.m. of July 1; is a little to the north of the Moon at 6h. 35m. p.m. of the 24th; is quite close to Regulus (Alpha Leonis) on July 27, being at 3h. 32m. p.m. eight minutes (in space) north, and five hours later one minute in time east of that star. It is a little to the west of (Rho) Leonis at 11h. 36m. p.m. of the 31st. It is in constellation of Gemini at the beginning, and in that of Leo at the end, of the month. It rises at 3h. 37m. a.m. on July 1, and at 6h. 46m. a.m. on July 31, setting at 8h. 27m. p.m. and 8h. 41m. p.m. at those times respectively.

VENUS is in the constellation of Taurus throughout the month, and continues to be the morning star. It rises at 1h. 32m. a.m. on July 1, and at 0h. 50m. a.m. on July 31, setting at 4h. 20m. p.m. and 4h. 49m. p.m. respectively on those occasions. It is a little (directly) west of Delta (1) Tauri at 5h. 25m. p.m. of the 10th, and of Delta (3) Tauri at 9h. 20m. p.m. of the 12th, whilst it is very close to and north of the latter at 5h. 46m. p.m. of the 13th. It arrives at its greatest westerly elongation at 9h. a.m. of the 17th. It is very near the Moon at 2h. 29m. a.m. of the 19th.

MARS is now invisible. It is in the constellation of Leo throughout the month. It rises at 7h. 40m. a.m. of the 1st and at 7h. 29m. a.m. of the 31st; setting at 10h. 25m. p.m. and 9h. 1m. p.m. respectively. It is a little to the west of Regulus at 4h. 8m. a.m. of the 13th, and to Rho Leonis at 0h. 51m. p.m. of the 24th. It is a little to the north of the Moon at 9h. 47m. p.m. of the 25th.

JUPITER is a little to the south of the Moon at 11h. p.m. of the 6th. It is in the constellation of Ophiuchus throughout July. It rises at 6h. 49m. p.m. of the 1st, and at 4h. 39m. p.m. of the 31st; setting at 2h. 47m. a.m. and 0h. 38m. a.m. respectively.

SATURN rises at 1h. 23m. p.m. of the 1st, and at 11h. 32m. a.m. of the 31st; setting at 0h. 24m. a.m. and 10h. 23m. p.m. respectively. It is a little to the north of the Moon at 9h. 14m. a.m. of the 2nd, and at 6h. 34m. p.m. of the 29th. It is in quadratures with the Sun at 1h. 2m. p.m. of the 16th.

URANUS still remains invisible. It is a little north of the Moon at 3h. 2m. p.m. of the 20th.

NEPTUNE rises shortly before midnight.

OCCULTATIONS OF STARS BY THE MOON.—July 3, Alpha (2) Librae, 2nd magnitude, disappears 9h. 58m. p.m.; reappears at 10h. 52m. p.m.; angles from vertex, 49 deg. and 330 deg. respectively. July 8, Rho (1) Sagittarii disappears at 9h. 21m. p.m.; reappears at 10h. 11m. p.m.; angles from vertex, 118 deg. and 212 deg. respectively.

ECLIPSES OF JUPITER'S SATELLITES.—July 6, at 10h. 4m. p.m., first satellite reappears; July 13, at 11h. 59m. p.m., first satellite reappears; July 25, at 10h. 42m. p.m., second satellite reappears. July 29, at 10h. 18m. p.m., first satellite reappears.

AUGUST.

THE SUN is north of the Equator during this month, and remains in the sign of Leo until 4h. 13m. a.m. of the 23rd, when it passes into that of Virgo.

THE MOON is a little to the north of Jupiter at 4h. 6m. a.m. of the 3rd; to the south of Uranus at 3h. 34m. p.m. of the 16th; to the south of Venus at 3h. 53m. p.m. of the 17th; to the north of Mercury at 7h. 5m. a.m. of the 23rd; to the south of Mars at 4h. 7m. p.m. of the 23rd; to the south of Saturn at 5h. 30m. a.m. of the 26th; and to the north of Jupiter at 1h. p.m. of the 30th. It is at its least distance from the Earth at 7h. p.m. of the 9th, and at its greatest at 3h. p.m. of the 25th.

Full Moon occurs at 29 minutes past	5	on the morning of the 7th.
Last Quarter	43	" 9 on the evening of the 13th.
New Moon	17	" 7 on the morning of the 21st.
First Quarter	46	" 11 on the morning of the 29th.

MERCURY remains in the constellation of Leo throughout this month. It is best seen at the beginning of August. On Aug. 1 it rises at 6h. 51m. a.m., setting at 8h. 39m. p.m.; and on the last day of the month rises at 6h. 38m. a.m., setting at 6h. 42m. p.m. It is at its greatest distance from the Sun at 9h. p.m. of the 10th; at its greatest easterly elongation (about 27° 23') at 9h. 51m. p.m. of the same day; a little south of the Moon at 7h. 5m. a.m. of the 23rd; and is stationary at 6h. 48m. a.m. of the 24th.

VENUS continues to shine brightly during the early morning hours, rising an hour after midnight on the 1st of the month, and at 1h. 24m. a.m. of the 31st. It is not visible during the evening, as it sets at 4h. 51m. p.m. and at 5h. 10m. p.m. at those times. It is a little to the south of Uranus at 7h. 15m. a.m. of the 9th, and to the north of the Moon at 3h. 58m. p.m. of the 17th. It is in the constellation of Taurus at the beginning, and in that of Cancer at the end, of the month.

MARS will be visible at the beginning of the month, but not at the end. It

(Continued on page 51.)

OCTOBER.



DEER SHOOTING.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.		DURATION OF MOONLIGHT.										HIGH WATER AT				Day of Year.		
			Rises.	Souths before Noon.	Sets.	Rises. Aftern.	Sets. Morn.	Before Sunrise.					Moon's Age.	After Sunset.					London Bridge.		Liverpool Dock.			
								O'Clock.	2	3	4	5		6	O'Clock.	5	6	7	8	9	Morn.		Aftern.	Morn.	Aftern.
1	S	16TH S. AFT. TRIN. <small>Cambr. T. beg.</small>	6 2	10 23	5 36	3 45	1 17							12						10 32	11 10	7 48	8 23	274
2	M	Admiral Keppel died, 1789	6 4	10 42	5 34	4 16	2 34							13						11 45	—	8 50	9 14	275
3	Tu	Day breaks 4h. 12m.	6 5	11 15	5 32	4 45	3 55							14						0 12	0 36	9 37	10 1	276
4	W	Twilight ends 7h. 22m.	6 7	11 19	5 29	5 16	5 16							15						0 59	1 23	10 23	10 45	277
5	Th	Marquis Cornwallis died, 1805	6 9	11 37	5 27	5 49	6 38							16						1 45	2 7	11 6	11 28	278
6	F	<i>Faith.</i>	6 10	11 55	5 25	6 25	8 1							17						2 28	2 50	11 50	—	279
7	S	Length of day 11h. 11m.	6 12	12 12	5 23	7 6	9 20							18						3 12	3 35	0 13	0 36	280
8	S	17TH SUN. AFT. TRINITY	6 14	12 29	5 20	7 52	10 33							19						3 58	4 20	0 58	1 21	281
9	M	<i>St. Denys</i>	6 15	12 45	5 18	8 45	11 37							20						4 43	5 5	1 43	2 7	282
10	Tu	Oxford Michaelmas Term begins	6 17	13 15	5 16	9 45	Aftern.							21						5 29	5 53	2 31	2 57	283
11	W	Mean Temperature, 50 deg.	6 19	13 16	5 14	10 47	1 20							22						6 19	6 46	3 24	3 53	284
12	Th	Columbus sees land, 1492	6 21	13 31	5 12	11 52	1 59							23						7 15	7 51	4 29	5 10	285
13	F	<i>Trans. K. Edward, Conf.</i>	6 22	13 45	5 9	Morn.	2 28							24						8 32	9 13	5 51	6 32	286
14	S	Battle of Hastings, 1794	6 24	13 59	5 7	0 57	2 56							25						9 54	10 34	7 12	7 49	287
15	S	18TH SUN. AFT. TRINITY	6 26	14 12	5 5	2 0	3 20							26						11 11	11 42	8 20	8 48	288
16	M	Marie Antoinette executed, 1793	6 27	14 25	5 3	3 3	3 45							27						—	0 10	9 10	9 30	289
17	Tu	Dunkirk sold, 1662	6 29	14 37	5 1	4 7	4 7							28						0 32	0 52	9 51	10 9	290
18	W	<i>St. Luke</i>	6 31	14 48	4 59	5 10	4 30							29						1 13	1 31	10 26	10 40	291
19	Th	Battle of Leipsic, 1813	6 33	14 59	4 57	6 12	4 54							30						1 48	2 2	10 57	11 13	292
20	F	Twilight ends 6h. 48m.	6 34	15 9	4 55	7 15	5 21							1						2 19	2 35	11 28	11 44	293
21	S	Battle of Trafalgar, 1805	6 36	15 19	4 53	8 15	5 52							2						2 50	3 6	—	0	1294
22	S	19TH SUN. AFT. TRINITY	6 38	15 28	4 51	9 15	6 27							3						3 23	3 38	0 16	0 31	295
23	M	Irish Rebellion, 1641	6 40	15 36	4 49	10 12	7 8							4						3 53	4 8	0 46	1	1296
24	Tu	Length of day 10h. 6m.	6 41	15 43	4 47	11 4	7 57							5						4 23	4 39	1 17	1 35	297
25	W	<i>St. Crispin</i>	6 43	15 50	4 45	11 51	8 51							6						4 57	5 15	1 53	2 13	298
26	Th	Royal Charter lost, 1859	6 45	15 56	4 43	Aftern.	9 53							7						5 35	5 56	2 34	2 59	299
27	F	Day breaks 4h. 53m.	6 47	16 2	4 41	1 11	11 0							8						6 21	6 47	3 25	3 56	300
28	S	<i>St. Simon & St. Jude</i>	6 48	16 6	4 39	1 44	Morn.							9						7 18	7 54	4 32	5 12	301
29	S	20TH SUN. AFT. TRINITY	6 50	16 10	4 37	2 14	0 12							10						8 34	9 17	5 55	6 36	302
30	M	Twilight ends 6h. 29m.	6 52	16 13	4 35	2 43	1 26							11						9 58	10 35	7 13	7 49	303
31	Tu	Lord Dundonald died, 1860	6 54	16 16	4 33	3 12	2 45							12						11 11	11 40	8 18	8 45	304



"WAITING FOR FATHER," BY R. COLLINSON.—FROM "THE ILLUSTRATED LONDON NEWS.

FERNS AND BUTTERFLIES. SEPTEMBER AND OCTOBER.

IN all rural districts this is surely a busy season, for men and maidens are out with their bended sickles to gather in the yellow harvest. It is an anxious time for the farmer. He is continually on the lookout for the weather, noting every sign, which one so well practised in such matters can easily discern. Unlike the manufacturer, who carries on his business indoors, independent of the weather, the farmer is never safe, however beautiful his crop may look while standing, until it is safe in the garner. Somehow, he seems to live nearer to the Giver of All Good than the busy indweller of cities, for he puts his trust in Him who has promised that "seed-time and harvest shall not fail." In October we begin to feel that the autumn has really come, no longer divided from the summer by the golden sheaf and lingering flowers, but with features of its own, marked with slow decay. Nearly all the singing-birds have departed for sunnier lands, and the swallows are preparing to follow them, while other birds arrive to take their places. The woods never look more beautiful than in September and the beginning of October. Every shade of yellow and crimson tints the trees, and we have the frequent sound of the sportsman's gun reminding us that with the long vacation commences the slaughter of the partridges and pheasants that have so long enjoyed a respite. The stately deer, too, in some of our spacious parks never look so beautiful as when they move about or couch in the russet-coloured fern, with the varying colours of the foliage scattered around and a blue atmosphere in the distance. A walk on the fern and heath covered waste on a crisp, bright, autumnal morning is one of the best remedies for an attack of low spirits. There are the great gorse-bushes in bloom, high as one's head; the bushes with their wild fruits, the sloe, the bullace, or the crab; and here and there are bright open spots on which we may lie for hours on the softest bed of heather, such as the brave Highlander often rests upon; or perhaps we should say used to rest upon, for we fear the refinements of civilisation have reached very remote districts, and there are but few of the genuine "Scots whom Bruce had often led" left in our Highland mountains and glens, and but few who would be content with such a couch as that described by Sir Walter Scott:—

Before the heath had lost the dew
This morn, a couch was pulled for you
On yonder mountain's purple head.

The stranger would, doubtless, expect a more luxurious bed than

the stranger's bed
That was of mountain-heather spread.

The heather here alluded to is figured in our Plate, and is the "Calluna vulgaris." It is the genuine heather, and is distinguished from the heath *Erica tetralix*, with which it grows, by its smaller, more purple blossoms, placed all along the stem in little bunches. Sometimes the flowers are white; but this is rare. The heath *Erica tetralix* is, perhaps, the best known of our native heaths. The leaves are four in a whorl, lanceolate and linear, ciliate, downy above and on the midrib beneath. The stem is bushy at the base, with rather short, erect, flowering branches. The flowers are rose-coloured, forming little clusters or close umbels at the end of the stalks. Both these plants grow together, and extensively, on the mountains of Scotland, and are adopted as the badges of the Highland clans. Although the *Erica tetralix* is not especially a Scotch plant, it was borne by the Macdonalds, the *Erica cinerea* by the Macallisters, and the *Calluna vulgaris* by the Macdonnells. On the moors and fells of the north of England and Scotland, where these pretty plants grow extensively, they give a character to the landscape, and shed, as it were, a purple hue over the distant mountains, causing them to glow in the sunlight and cast a rich coloured shade over them at sunset. There is, perhaps, no plant more useful in the districts where it grows than the heath, or ling, as it is called. In Wales and the Highlands of Scotland it furnishes food to the hill sheep, the mutton of which is peculiarly delicious. The mountaineer often builds his house of alternate layers of heath and mortar, or mud, and thatches it with the same plant. As a fuel it serves well, and it is said to yield a yellow dye, some of the tints of which are brilliant though not very permanent. In Yorkshire the tips are still collected for this purpose, being used in dyeing the inferior kinds of cloth. Moreover, in England, the sprigs of the heath are constantly made into brooms, or besoms, which are very serviceable. As food for moor game and grouse, the heath is almost essential, and it is only where this plant will grow that these birds can be preserved. The red deer crops the young shoots of the heather, and bees extract honey from the flowers, which, though dark in colour, is very rich in flavour. The heather and many other species of heath is sometimes prettily used as a border for flower-beds in gardens. Sir W. Hooker suggested it, and it has been carried out at Kew. By being frequently cut, it grows dense and shrubby, and is livelier and prettier than box. But, when we regard the heath plants as fit for so lowly a purpose, and seldom in our southern regions see them about a foot or two in height, we are surprised to read of

Heather black that waved so high,
It held the coo in rivalry.

Yet, in wild, peaty districts it is even so; and to judge of it we must travel far north, and see it, as the true Highland men of Marazion did, when—

mountains felt the rays,
And as each heathy top they kiss'd,
It gleamed a purple amethyst.

There are six species of *Erica* in Great Britain, somewhat difficult to distinguish. The *Erica cinerea*, or fine-leaved heath, is almost as common as the ling, and grows in some hilly districts quite as abundantly. Some writers make a distinction between the words heath and heather, and contend as to which of these plants constituted the "heather" of Scotch poetry, one affirming it to be *Calluna*, and another one of the *ericas*. Lightfoot, who paid great attention to native names, calls both "lather," and of both, says Sir Wm. Hooker, the Gaelic is "troach." He also says that, after living and botanising in Scotland for upwards of twenty years, he had always understood "heather" to be a generic rather than a specific name, identical with our English word heath.

Many a ramble during this season of the year will gather a bunch of purple heath and "bonnie broom," and, looking round for some green leaves to mingle with it, will chase the bright fronds of the hard fern (*Blechnum spicant*), which just now arrive at perfection.

Cowper may have had this fern in his mind on such a scene as we have been describing when he wrote of—

The common overgrown with fern, and rough,
With prickly gorse, that shapeless and deformed,
And dangerous to the touch, has yet its bloom,
And decks itself with ornaments of gold.

Though occurring in most countries, it is somewhat local in its haunts,

and Mr. Newman does not recollect having seen a specimen from the chalk hills of Kent, Sussex, or Surrey. It is fond of moisture, and prefers clay or gravelly soils. It is a fern readily distinguished, the barren fronds spreading more around the spot whence they arise, sometimes being quite prostrate on the ground, and having the pinnae much closer together than in the tall, erect, fertile fronds, which are cut into so many slender divisions as to resemble the teeth of a comb—the barren ones having their segments only cut nearly to the midrib, while the fertile ones are distinctly pinnate. The former are about half the height of the fertile fronds, and have short scaly stalks. The fertile fronds, which are about a foot and a half in height, have a dark brown stalk nearly half their length, with long pointed scales on its surface, and are at once seen by their upright growth. The fertile fronds arrive at perfection in September, shed their seed, and disappear before the winter; the barren ones remain green throughout the year.

The clumps of *Blechnum* are so handsome that we should be sorry to miss them, though we cannot put them to any economical use. Cattle will not eat their stiff leaves; but the old herbalists, who found something wonderful in everything, called it rough spleenwort; and Gerard says, "There be empiricks, or blind practitioners, of this age, who teach that with this herbe not only the hardness and swelling of the spleen, but all infirmities of the liver also, may be effectually and in a very short time removed, inasmuch that the sordid liver of a beast is restored to his former constitution again, that is made like unto a raw liver, if it be boyled again with this herbe."

The hard fern is worth cultivating on rockwork, its fertile fronds are delicate and beautiful during the summer and autumn, and its barren fronds bright and glossy, green, and persistent during the winter. It does not like glass covering, and shuns protection of any kind, preferring to grow so as to face the north, as in a state of nature.

The season for botanising out of doors is now nearly over—bright days may occasionally be seized, but we instinctively turn to the fire, and the days are too short for evening walks. Now is the time to arrange and garner all we have collected in the bright summer days—to use our handbooks, and to name and classify our plants and our butterflies. Those who have really cared for the ferns which have added so much beauty to their summer rambles will undoubtedly have preserved many of them, and is to be hoped they are carefully dried between several sheets of Bental's drying-paper, the only paper which really well preserves the colours of any plants. It is coarse and of a dark colour, but answers better than the ordinary blotting-paper. If, however, it cannot be obtained, the usual sort or old newspapers will answer the purpose of preserving the plants. Two boards planed by any carpenter, about half an inch thick, a foot wide, and a foot and a half long, two narrow but strong leather straps, which cost about a shilling each, and several quires of drying-paper, constitute all the apparatus necessary for a collection of dried ferns. They are the best of all plants for preservation in the herbarium, for, in addition to their elegant appearance when nicely arranged on sheets of white paper, they are less liable than many plants to the attacks of destructive insects which commit great havoc among dried plants in general. In gathering ferns to dry, cut them as low down the stem as possible, and the smaller kinds in the tufts as they grow. In putting them to dry in the blotting-paper have respect to the natural position of the fern and also to the size of the sheet of paper on which they are to be finally placed. When the fronds are long or the specimen large they may be bent so as to be in a smaller space than they otherwise would, and if dried in a certain position they will easily retain their form. It is best at first to make the pressure lightly, so as to alter the form of the plant, if needful, before it is completely dried. When arranged on the drying-paper place several sheets between each specimen and the paper between the boards, which may now be strapped tightly, increasing the pressure from day to day, care being taken to change the sheets of paper frequently until the process is complete, which will generally be in three or four weeks. When they are finally removed to put down (which operation may be deferred to the autumnal evenings) they should be secured by thin little strips of gummed-paper to a good-sized sheet of white paper. This gummed-paper is best prepared beforehand by covering a sheet of note-paper with a strong solution of gum and allowing it to dry. It may thus be kept ready for use, and thin strips, as required, may be cut from it. This plan is better than gumming the whole plant or any portion of it, as the little slips can at any time be removed with a pen-knife without injuring the book or paper in which they are fixed. The specimens should be fully labelled, giving their names, the locality where gathered, and the date; and the papers to which they are affixed should be inclosed in separate paper covers formed of whole sheets, each genus being kept distinct. These covers may then be placed in a drawer or on the shelves of a cabinet, where they will be free from dust and the attacks of insects. In the first part of the process of drying it is desirable to have two sets of blotting sheets, so that while one is engaged in drying the ferns, the other may be getting rid of its moisture before the fire or in the sunshine. It will be seen how pleasant an occupation the summer rambles thus furnish for the wintry days. The naming of the specimens, comparing them with others, and arranging them carefully and neatly, is a work of time which cannot well be undertaken in the summer months, when all nature invites us into the fields. Certain books must almost necessarily be had by those who would earnestly study this branch of natural history. We would mention Messrs. Bradbury's beautiful but expensive volume of "Nature-Printed Ferns," and, as more available for the ordinary student, Miss Pratt's "Ferns of Great Britain," Mr. Moore's little "Handbook of British Ferns," Mrs. Lankester's "Plain and Easy Account of British Ferns," and Mr. Newman's complete and exhaustive work on "British Ferns." Any or all of these volumes will be found to contain much that is interesting and instructive.

In spite of cheerless days, and sometimes the indifferent weather of the later part of this month, we may expect to see the sombre butterflies known to naturalists as belonging to the genus *Hipparchia*. The one figured in our Plate is *Hipparchia janira*, the heath butterfly, and in autumn days we have often seen it taking advantage of every transient gleam of sunshine to trip from flower to flower, seemingly the last and sole possessor of the sweets of the heath or field. The wings of the male are of a uniform blackish brown, enlivened by a small black eye, with a white pupil. Beneath this ocellus there is in those of the female a large irregular patch of orange buff, and all her pinions are more prettily and somewhat more gaily painted on their under than their upper sides—the foremost with dark orange, the hindmost with shades of light brown. Their caterpillars, usually green, with forked tails, assimilate with the various grasses on which they feed; and even when arrayed in winged attire their prevailing shades of brown and orange bear still a degree of correspondence with the hues of the ripened and sunburnt clothing of their favourite localities, the meadow and the heath. Perhaps it is somewhat late in the season to commence making a collection of moths; but early in September we often find calm, warm, moonless nights when these little creatures are very abundant and may be easily captured.

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

is in the constellation of Leo on Aug. 1, and in that of Virgo on Aug. 31. It rises at 7h. 29m. a.m. at the beginning, and at 7h. 20m. a.m. at the end of the month; setting respectively at 8h. 57m. p.m. and 7h. 30m. p.m. It is a little to the east of Chi Leonis at 9h. 29m. p.m. of the 1st, and of Sigma Leonis at 5h. 25m. p.m. of the 6th. It is a little north of the Moon at 4h. 7m. p.m. of the 23rd.

JUPITER is a little south of the Moon at 4h. 6m. a.m. of the 3rd, and at 1h. p.m. of the 30th. It is stationary at 3h. 16m. a.m. of the 16th. It is in the constellation of Ophiuchus throughout August. It rises at 4h. 35m. p.m. on Aug. 1 and at 2h. 38m. p.m. of Aug. 31, setting at 0h. 34m. a.m. and 10h. 31m. p.m. respectively.

SATURN remains in Virgo throughout the month. It rises at 11h. 28m. a.m. of the 1st and at 9h. 43m. a.m. of the 31st, setting at 10h. 19m. p.m. and 8h. 25m. p.m. respectively. It is a little north of the Moon at 5h. 30m. a.m. of the 26th.

URANUS is a little north of the Moon at 11h. 34m. p.m. of the 16th. It is visible after midnight.

NEPTUNE is also visible during the night in the constellation of Pisces. OCCULTATIONS OF STARS BY THE MOON.—No occultations of stars as bright as 5th magnitude occur in August.

ECLIPSES OF JUPITER'S SATELLITES.—Aug. 2, 10h. 5m. p.m., 3rd satellite disappears; Aug. 14, 8h. 36m. p.m., 1st satellite reappears.

SEPTEMBER.

THE SUN is north of the Equator and in the sign of Virgo until 1h. 0m. a.m. of the 23rd, when it passes into that of Libra, and is south of the Equator, and the Autumn Quarter commences.

The MOON is a little to the south of Uranus, at 6h. 43m. a.m. of the 13th; to the south of Venus at 4h. 21m. p.m. of the 16th; to the south of Mercury at 2h. 2m. p.m. of the 18th; to the south of Mars at 10h. 55m. a.m. of the 21st; to the south of Saturn at 5h. 20m. p.m. of the 22nd; and to the north of Jupiter at 1h. 4m. a.m. of the 27th. It is nearest the Earth at 9h. p.m. of the 6th, and most distant at 4h. a.m. of the 22nd.

Full Moon occurs at 52 minutes past 1	on the afternoon of the 5th.
Last Quarter " 58 "	4 on the morning of the 12th.
New Moon " 46 "	10 on the evening of the 19th.
First Quarter " 47 "	2 on the morning of the 28th.

MERCURY rises at 6h. 30m. a.m. on the 1st of September, and sets at 3h. 4m. p.m. On the 30th it rises at 4h. 26m. a.m., setting at 5h. 26m. p.m. It remains in the constellation of Leo throughout the month. It is in inferior conjunction with the Sun at 9h. 36m. a.m. of the 7th; is stationary at 9h. 30m. p.m. of the 15th; is a little to the north of the Moon at 2h. 2m. p.m. of the 18th; at its greatest westerly elongation at 6h. 33m. a.m. of the 23rd; and at its shortest distance from the Sun at 8h. 39m. p.m. of the same day, when it will be most favourably seen.

VENUS is a little north of the Moon at 4h. 21m. p.m. of the 16th, and is very close to Regulus (Alpha Leonis) at 8h. 25m. p.m. of the 26th, being a little north of that star. On the 27th, at 7h. 38m. a.m. it is a little east, but close to the same star. It is in the constellation of Cancer in the beginning, and in that of Leo at the end of the month. It continues to be the morning star, rising at 1h. 26m. a.m. of the 1st, and at 2h. 36m. a.m. of the 30th; setting at those times at 5h. 10m. p.m. and 4h. 45m. p.m. respectively.

MARS remains in the constellation of Virgo throughout this month. It rises at 7h. 20m. a.m. of the 1st and at 7h. 14m. a.m. of the 30th, setting at 7h. 26m. p.m. and 6h. 3m. p.m. respectively. It is a little north of the Moon at 10h. 55m. a.m. of the 21st.

JUPITER is in quadratures with the Sun at 4h. 32m. a.m. of the 13th, and a little south of the Moon at 1h. 4m. a.m. of the 27th. It remains in Ophiuchus throughout the month. On Sept. 1 it rises at 2h. 35m. p.m., and on Sept. 30 at 0h. 53m. p.m., setting at those times at 10h. 27m. p.m. and 8h. 44m. p.m. respectively.

SATURN is in the constellation of Virgo, rising at 9h. 39m. a.m. on Sept. 1, and at 8h. 3m. a.m. on Sept. 30, setting at 8h. 22m. p.m. and 6h. 32m. p.m. respectively. It is a little north of the Moon at 5h. 20m. p.m. of the 22nd.

URANUS is a little north of the Moon at 6h. 43m. a.m. of the 13th, and in quadratures with the Sun at 0h. 29m. a.m. of the 27th. It is seen in the constellation of Gemini during the night.

NEPTUNE is visible during the evening and night in the constellation of Pisces.

OCCULTATIONS OF STARS BY THE MOON.—Sept. 11, Delta (1) Tauri, 4th magnitude; disappears at 3h. 16m. a.m.; reappears at 4h. 7m. a.m.; angles from vertex 123 and 222 deg. respectively.

ECLIPSES OF JUPITER'S SATELLITES.—Sept. 20, at 7h. 41m. p.m., 2nd satellite reappears; Sept. 22, 7h. 9m. p.m. 1st satellite reappears.

OCTOBER.

THE SUN is south of the Equator during this month, and remains in the sign of Libra until 9h. 20m. a.m. of the 23rd, when it passes into that of Scorpio.

The MOON is eclipsed on the night of the 4th. It is a little to the south of Uranus at 1h. 52m. p.m. of the 10th; to the south of Venus at 10h. 25m. p.m. of the 16th; to the south of Mercury at 1h. 51m. p.m. of the 19th; to the south of Saturn at 5h. 41m. a.m. of the 20th; and to the north of Mars at 6h. 54m. a.m. of the same day; and to the north of Jupiter at 3h. 30m. p.m. of the 24th. It is nearest the Earth at 6h. a.m. of the 5th, and most distant at 7h. a.m. of the 19th.

Full Moon occurs at 31 minutes past 10	on the evening of the 4th.
Last Quarter " 22 "	3 on the afternoon of the 11th.
New Moon " 27 "	4 on the afternoon of the 19th.
First Quarter " 50 "	3 on the afternoon of the 27th.

MERCURY is very close to the Moon at 1h. 51m. p.m. of the 19th, and in superior conjunction to the Sun at 2h. 10m. p.m. of the 21st. It is close to Saturn (a little south) at 9h. 19m. p.m. of the 24th, and very close to Mars at 10h. 52m. a.m. of the 28th. It is best seen at the beginning of the month. It is on the confines of the constellations of Leo and Virgo at the beginning, and in that of Libra at the end of the month. It rises at 4h. 30m. a.m. of the 1st, and at 7h. 30m. a.m. of the 31st, setting, at those times, at 5h. 25m. p.m., and 4h. 4m. p.m. respectively.

VENUS still continues to be the morning star, although becoming perceptibly fainter. It is in the constellation of Leo at the beginning, and in that of Virgo at the end of the month. On the 1st of October it rises at 2h. 40m. a.m., and sets at 2h. 44m. p.m.; and on the 31st, rises and sets, respectively, at 4h. 6m. a.m., and at 3h. 54m. p.m. It is a little (direct) to the east of Rho Leonis at 1h. a.m. of the 4th; to the west of Sigma Leonis at 4h. 6m. p.m. of the 8th; to the west of Sigma Leonis at 3h. 38m. p.m. of the 11th; north of the Moon at 10h. 25m. p.m. of the 16th, and at its shortest distance from the Sun at 7h. a.m. of the 19th. It is close to, and a little to the east of, Beta Virginis at 11h. 28m. p.m. of the 20th; to the east

of Eta Virginis at 3h. 30m. a.m. of the 26th, and the west of Gamma Virginis at 7h. 23m. p.m. of the 27th.

MARS is situated near Spica Virginis on Oct. 1 and near Alpha Libræ on Oct. 31. It rises on the former time at 7h. 13m. a.m., setting at 6h. 1m. p.m.; and on the latter rises at 7h. 12m. a.m., and sets at 4h. 42m. p.m. It is a little south of Saturn at 4h. 53m. a.m. of the 19th, and south of the Moon at 6h. 54m. a.m. of the 20th.

JUPITER is a little south of the Moon at 3h. 30m. p.m. of the 24th. It is in the constellation of Ophiuchus at the beginning, and in Sagittarius at the end of the month. It rises at 0h. 49m. p.m. of Oct. 1 and at 11h. 15m. a.m. of Oct. 31, setting respectively at 8h. 40m. p.m. and 7h. 2m. p.m. of those times.

SATURN remains in the constellation of Virgo. It rises at 8h. a.m. on Oct. 1 and at 6h. 21m. a.m. of the 31st, setting at 6h. 29m. p.m. and 4h. 39m. p.m. respectively. It is near Mars at 4h. 53m. a.m. of the 19th, and a little north of the Moon at 5h. 41m. a.m. of the 20th. It is in conjunction with the Sun at 1h. 16m. p.m. of the 26th.

URANUS is stationary at 6h. 48m. p.m. of the 9th, and a little north of the Moon at 1h. 52m. p.m. of the 10th. It is visible throughout the night in the constellation of Gemini.

NEPTUNE is visible throughout the night in the constellation of Pisces. OCCULTATIONS OF STARS BY THE MOON.—No occultations of bright stars occur during the month.

ECLIPSES OF JUPITER'S SATELLITES.—Oct. 20, at 5h. 59m. p.m., the 3rd satellite disappears.

NOVEMBER.

THE SUN is south of the Equator throughout this month, and remains in the sign of Scorpio until 6h. 1m. a.m. of the 22nd, when it passes into that of Sagittarius.

The MOON is a little to the south of Uranus at 10h. 6m. p.m. of the 6th; to the south of Venus at 6h. 4m. a.m. of the 16th; to the south of Saturn at 6h. 25m. p.m. of the 16th; to the north of Mars at 4h. 53m. a.m. of the 18th; to the north of Mercury at 8h. 9m. p.m. of the 19th; and to the north of Jupiter at 7h. 55m. a.m. of the 21st. It is at its least distance from the Earth at 6h. p.m. of the 2nd, and at its greatest a noon of the 15th.

Full Moon occurs at 3 minutes past 8	on the morning of the 3rd.
Last Quarter " 45 "	5 on the morning of the 10th.
New Moon " 0 "	11 on the morning of the 18th.
First Quarter " 50 "	2 on the morning of the 26th.

MERCURY is in the constellation of Libra at the beginning, and in that of Sagittarius at the end of the month. It rises at 7h. 35m. a.m. at the beginning, and at 9h. 41m. a.m. at the end of the month; setting at those times respectively at 4h. 42m. p.m. and at 4h. 51m. p.m. It will be badly seen throughout the month, from its low altitude. It is at its greatest distance from the Sun at 8h. 17m. p.m. of the 6th; and is about six degrees south of the Moon at 8h. 9m. p.m. of the 19th.

VENUS is a little north of the Moon at 6h. 4m. a.m. of the 16th; a little south of Saturn at 6h. 56m. p.m. of the 21st; and about fourteen minutes (in time) east of Alpha Libræ at 6h. 19m. p.m. of the 29th. It is in the constellation of Virgo at the beginning, and in that of Libra at the end of the month. It rises at 5h. 43m. a.m. of Dec. 1, and at 7h. 8h. a.m. of Dec. 31, setting at those times at 3h. 5m. p.m. and 2h. 50m. p.m.

MARS is in conjunction with the Sun at 10h. 3m. a.m. of the 11th, and is therefore invisible. It is a little south of the Moon at 4h. 53m. a.m. of the 18th. It is in Libra at the beginning, and in Scorpio at the end of the month. It rises at 7h. 12m. a.m. of Nov. 1, and at 7h. 14m. a.m. of Nov. 30, setting at 4h. 40m. p.m. and 3h. 34m. p.m. respectively.

JUPITER is still seen in the early evenings in the S.W. It rises at 11h. 11m. a.m. of Nov. 1 and at 9h. 43m. a.m. of Nov. 30, setting respectively at 6h. 58m. p.m. and 5h. 30m. p.m. It is a little south of the Moon at 7h. 55m. a.m. of the 21st.

SATURN is a little north of the Moon at 6h. 25m. p.m. on the 16th. It rises at 6h. 18m. a.m. on Nov. 1, and at 4h. 42m. a.m. of Nov. 30, setting at 4h. 35m. p.m. and 2h. 49m. p.m. respectively. It passes from the constellation of Virgo to Libra during the month.

URANUS is visible throughout the night, in the constellation of Gemini. It is a little north of the Moon at 10h. 6m. p.m. of the 6th.

NEPTUNE is likewise visible in the constellation of Pisces.

OCCULTATIONS OF STARS BY THE MOON.—Nov. 13, Upsilon Leonis, 4½ magnitude; disappears at 1h. 14m. a.m.; reappears at 2h. 5m. Angles from vertex, 6 deg. and 241 deg. respectively.

ECLIPSES OF JUPITER'S SATELLITES.—None occur during this month.

DECEMBER.

THE SUN is south of the Equator during this month, and remains in the sign of Sagittarius until Dec. 21, at 6h. 49m. p.m., when it passes into that of Capricornus, and the Winter Quarter commences.

The MOON is a little to the south of Uranus at 7h. 10m. a.m. of the 4th; to the south of Saturn at 7h. 16m. a.m. of the 14th; north of Venus at 3h. 42m. p.m. of the 16th; north of Mars at 5h. 22m. a.m. of the 17th; to the north of Mercury at 1h. 26m. a.m. of the 19th; to the north of Jupiter at 2h. 20m. a.m. of the 19th, and to the south of Uranus at 3h. 33m. p.m. of the 31st. It is at its least distance from the Earth at 4h. a.m. of the 1st, and at 3h. a.m. of the 29th, and at its greatest distance at 3h. a.m. of the 13th.

Full Moon occurs at 44 minutes past 6	on the evening of the 2nd.
Last Quarter " 13 "	midnight of the 9th.
New Moon " 45 "	4 on the morning of the 18th.
First Quarter " 31 "	noon of the 25th.

MERCURY is close to Jupiter, and a little south, at 11h. 30m. a.m. of the 5th. It occurs or is very close to Lambda Sagittarii at 2h. 23m. p.m. of the 5th, when it will be well seen, as it arrives at its greatest easterly elongation at 4h. 13m. of the same day. It is stationary at 10h. 33m. p.m. of the 13th. It is slightly north of Jupiter at 3h. 48m. p.m. of the 18th, and a little south of the Moon at 1h. 26m. a.m. of the 19th. It is at its shortest distance from the Sun at 7h. 53m. p.m. of the 20th, and in inferior conjunction with the Sun at 10h. 43m. a.m. of the 23rd. It is a little to the north of Venus at 8h. 35m. a.m. of the 30th, and a little to the north of Mars at 8h. 22m. a.m. of the following day. It rises in the constellation of Sagittarius at the beginning, and in that of Ophiuchus at the end of the month; rising at 9h. 42m. a.m. on Dec. 1, and at 6h. 41m. on Dec. 31, and setting at those times respectively at 4h. 53m. p.m., and 3h. 5m. p.m.

VENUS is in the constellation of Libra at the beginning, and in that of Sagittarius at the end of the month. It rises at 5h. 45m. a.m. of Dec. 1, and at 7h. 8m. a.m. of Dec. 31; setting respectively at 3h. 5m. p.m. and 2h. 59m. p.m. It is a little to the south of the Moon at 8h. 42m. p.m. of the 16th, and near Mars and Mercury on the 29th.

Continued on page 54.)

NOVEMBER.



COURSING.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.			DURATION OF MOONLIGHT.								HIGH WATER AT				Day of Year.
			Rises.	Souths before Noon.	Sets.	Rises. Aftern.	Sets. Morn.		Before Sunrise. O'Clock.	Moon's Age.	After Sunset. O'Clock.						London Bridge.	Liverpool Dock.			
			H. M.	M. S.	H. M.	H. M.	H. M.		3 4 5 6 7		4 5 6 7 8						H. M.	Aftern.	H. M.	Aftern.	
1	W	<i>All Saints</i>	6 55	16 17	4 31	3 43	4 5			13							11 11	0 7	9 11	9 35	305
2	Th	<i>All Souls</i> Michaelmas Term begins	6 57	16 18	4 29	4 16	5 26			14							0 33	0 57	9 58	10 22	306
3	F	Fall of Acre, 1840	6 59	16 18	4 28	4 53	6 49			15							1 20	1 44	10 45	11 8	307
4	S	Day breaks 5h. 5m.	7 1	16 17	4 26	5 39	8 7			16							2 7	2 30	11 32	11 54	308
5	S	21ST SUN. AFT. TRINITY	7 3	16 16	4 24	6 31	9 19			17							2 54	3 16	—	0 16	309
6	M	<i>St. Leonard</i>	7 4	16 13	4 22	7 29	10 22			18							3 38	4 1	0 39	1 3	310
7	Tu	Twilight ends 6h. 18m.	7 6	16 10	4 21	8 33	11 13			19							4 25	4 48	1 26	1 51	311
8	W	Cambridge Term divides	7 8	16 6	4 19	9 39	11 56			20							5 13	5 36	2 14	2 38	312
9	Th	Prince of Wales born, 1841	7 10	16 1	4 18	10 45	Aftern.			21							6 0	6 26	3 4	3 31	313
10	F	Schiller born, 1759	7 12	15 55	4 16	11 51	1 0			22							6 53	7 24	4 2	4 36	314
11	S	<i>St. Martin</i>	7 13	15 48	4 14	Morn.	1 25			23							7 58	8 35	5 13	5 48	315
12	S	22ND SUN. AFT. TRINITY	7 15	15 40	4 13	0 56	1 50			24							9 10	9 46	6 24	6 59	316
13	M	<i>Britius</i>	7 17	15 32	4 12	1 58	2 12			25							10 21	10 56	7 34	8 3	317
14	Tu	Leibnitz died, 1716	7 19	15 23	4 10	3 1	2 35			26							11 25	11 53	8 31	8 56	318
15	W	<i>St. Machutus</i>	7 20	15 12	4 9	4 3	2 58			27							—	0 18	9 17	9 37	319
16	Th	Length of day 8h. 45m.	7 22	15 1	4 7	5 6	3 24			28							0 39	0 59	9 58	10 15	320
17	F	<i>Hugh, Bishop of Lincoln</i>	7 24	14 49	4 6	6 9	3 53			29							1 20	1 37	10 32	10 47	321
18	S	Mean Temperature, 42 deg.	7 25	14 37	4 5	7 8	4 27			30							1 54	2 9	11 4	11 20	322
19	S	23RD SUN. AFT. TRINITY	7 27	14 23	4 4	8 8	5 6			1							2 26	2 42	11 36	11 52	323
20	M	<i>Edmund, King and Mart.</i>	7 29	14 9	4 2	9 1	5 53			2							2 58	3 14	—	0 8	324
21	Tu	Gresham died, 1579	7 30	13 53	4 1	9 50	6 45			3							3 30	3 48	0 26	0 43	325
22	W	<i>St. Cecilia</i>	7 32	13 37	4 0	10 35	7 45			4							4 5	4 21	0 59	1 18	326
23	Th	<i>Clement</i>	7 34	13 21	3 59	11 13	8 49			5							4 40	4 59	1 37	1 59	327
24	F	Day breaks 5h. 33m.	7 35	13 3	3 58	11 47	9 59			6							5 21	5 42	2 20	2 44	328
25	S	Michaelmas Term ends	7 37	12 45	3 57	Aftern.	11 11			7							6 6	6 31	3 9	3 37	329
26	S	24TH SUN. AFT. TRINITY	7 38	12 26	3 56	0 44	Morn.			8							6 59	7 29	4 7	4 41	330
27	M	Twilight ends 6h. 0m.	7 40	12 6	3 55	1 11	0 25			9							8 3	8 40	5 18	5 56	331
28	Tu	Washington Irving died, 1859	7 41	11 46	3 55	1 40	1 41			10							9 18	9 55	6 33	7 10	332
29	W	Wolsey died, 1530	7 43	11 25	3 54	2 10	2 59			11							10 32	11 5	7 43	8 15	333
30	Th	<i>St. Andrew</i>	7 44	11 3	3 53	2 44	4 19			12							11 37	—	8 43	9 11	334



GATHERING EDIBLE BIRDNESTS.—FROM "THE ILLUSTRATED LONDON NEWS."

IN a small island in the province of Bagelca, is Mount Karang-Ballong, the highest point of which is not more than 500 ft., projecting, in the form of heavy grey and black rocks, into the sea. It can be ascended without much difficulty; and if the traveller, catching hold of a rope, looks over the rock, he observes that it is not only 200 ft. high, but that it bends inwards, so that on the top it bores over the sea, which rushes in with great force below, and that in the side of the rock facing the sea innumerable fissures, caverns, and clefts reach down, even under the surface of the water. Millions of tiny, greyish birds, a species of swallow, nestle in those interstices of the rocks. They construct their nests, composed of some gluey or jelly-like substance, on the granite walls of these dark—to man almost impenetrable—caverns and fissures. There, sentinelled by the ocean, the little creatures may imagine they are safe from the coveting eye and greedy grasp of man. But they greatly deceive themselves, for these nests form a dainty dish, especially in the estimation of Chinese opium-smugglers, and are almost worth their weight in gold. Three times a year the nest-gathering takes place in those caves and hollows. In stormy weather it would, of course, be impossible to enter them,

and even when the sea is comparatively calm it is still a very dangerous undertaking. Down a rattan ladder the Javanese bird-nest-gatherer descends to a distance of two hundred feet perpendicularly from the projecting cliff along the granite wall. When he approaches the entrance to the cavern which he has selected as the locality for his researches, he waits till the wave has rushed inward, and then dextrously swings himself after it. In the interior a bamboo scaffolding has been erected, fastened by ropes to the walls of the vault. Standing on this scaffolding, he takes the nests from the walls to which they are attached, or when beyond his reach, pulls them down with a hook made for the purpose. In the mean time the waves are continually rushing in and out just below him, and, should the sea become suddenly stormy, or a squall arise so that the nest-gatherer cannot escape in time, the unfortunate creature is washed away to certain death. The trade in these bird-nests is not only a source of great gain to the merchants settled in Java, but it is also a source of wealth to the exchequer of the Netherlands, yielding, in the form of duty, about a quarter of a million sterling.

THE ILLUSTRATED LONDON ALMANACK FOR 1865.

MARS is a little south of the Moon at 5h. 22m. a.m. of the 17th, and near Venus at 7h. 12m. a.m. of the 29th. It is in the constellation of Scorpio at the beginning, and in that of Sagittarius at the end of the month. It rises at 7h. 15m. a.m. of the 1st, and at 7h. 9m. a.m. of the 31st; setting respectively at 2h. 32m. p.m. and 2h. 49m. p.m.

JUPITER arrives in conjunction with the Sun at 1h. 33m. past midnight of the 31st, and is scarcely visible. It rises at 9h. 40m. a.m. of Dec. 1, and at 8h. 9m. a.m. of Dec. 31, setting at 5h. 27m. p.m. and 4h. 1m. p.m. respectively. It is in the constellation of Sagittarius throughout the month. It is a little south of the Moon at 2h. 20m. a.m. of the 19th.

SATURN is a little north of the Moon at 7h. 16m. a.m. of the 14th. It is in the constellation of Libra throughout the month. It rises at 4h. 39m. a.m. of Dec. 1, and at 3h. 7m. a.m. of Dec. 31, setting at those times at 2h. 45m. p.m. and 6h. 52m. p.m.

URANUS comes into opposition at 4h. 16m. p.m. of the 23rd. It is a little north of the Moon at 7h. 10m. a.m. of the 4th, and at 3h. 33m. p.m. of the 31st. NEPTUNE is visible during the evening and night, southing at about 7h. p.m. on the middle of the month.

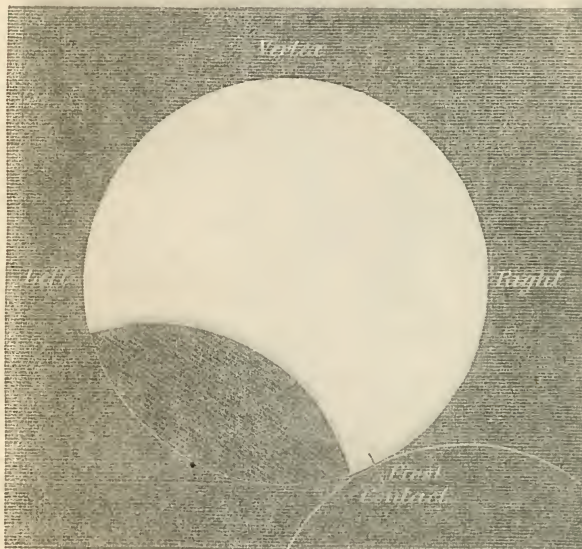
OCCULTATIONS OF STARS BY THE MOON.—Dec. 5, Lambda Geminorum, $3\frac{1}{2}$ magnitude; disappears at 7h. 36m. a.m., and reappears at 8h. 2m. a.m.; angles from vertex, 181 and 236 degrees. Dec. 7, Alpha Cancri, fourth magnitude; disappears at 1h. 47m. a.m.; reappears at 2h. 45m. a.m.; angles from vertex, 89 and 197 degrees respectively. Dec. 7, Kappa Cancri; disappears at 7h. 48m. a.m.; reappears at 8h. 39m. a.m.; angles from vertex, 70 and 327 degrees respectively.

CONJUNCTION OF PLANETS.—On Dec. 28 and 29 the planets Venus, Mars, and Mercury, will be close together.

No eclipses of Jupiter's satellites occur during this month.

ECLIPSES OF THE SUN IN 1865.

THERE will be two eclipses of the Sun in 1865. The first, which occurs on April 25, will be invisible at London; it will be visible in the South Atlantic Ocean and at the Cape of Good Hope. It is a total eclipse. The second, which is annular, occurs on Oct. 19, and is partly visible, as a partial one, at



ECLIPSE OF SUN, OCT. 19 1865.

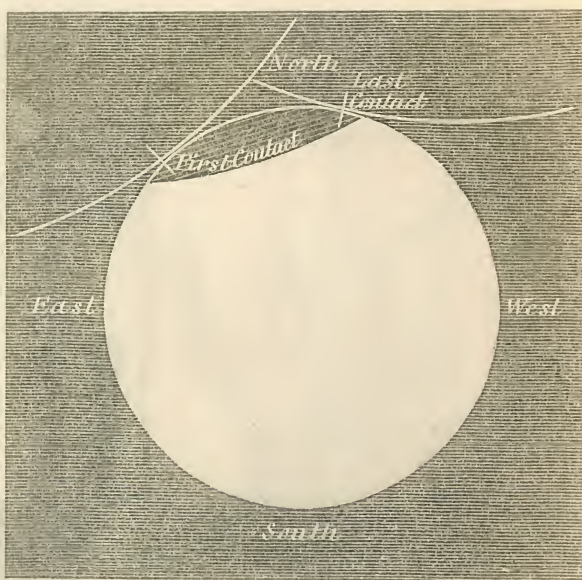
London. The point of the Sun's circumference at which the Moon first touches and the magnitude of the eclipse will be seen from the accompanying diagram. The times at which it commences and the greatest phase at different localities are as follow:—

	Begins.		Greatest Eclipse.		Sun Sets.
	h. m.		h. m.		h. m.
London ..	Oct. 19, 4 12 p.m.		Oct. 19, 5 9 p.m.		4 57
Cambridge ..	" 4 12 "		" 5 8 "		4 55
Oxford ..	" 4 6 "		" 5 8 "		4 56
Liverpool ..	" 3 56 "		" 4 52 "		4 53
Edinburgh ..	" 3 52 "		" 4 45 "		4 48
Dublin ..	" 3 40 "		" 4 36 "		4 53

The times at which the eclipse begins and of greatest eclipse are the local times of the places mentioned. Nearly one third of the Sun's diameter will be hidden at the time of greatest eclipse; but at Liverpool, Edinburgh, and Dublin it will be somewhat less.

ECLIPSES OF THE MOON, 1865.

Two eclipses of the Moon occur this year, both of which are seen in London, although to no great advantage. The first is very slight, only about two-tenths of the Moon's diameter being obscured, between the hours of four and five on the morning of April 11. The eclipse nominally commences by the shadow of the earth touching that of its satellite at 2h. 3m. a.m. of April 11, when acute eyes may perceive a slight cloud passing over the face of the Moon, but the first real darkening of the disc takes place at a quarter to four on the morning of the 11th. The middle of the eclipse occurs at 4h. 38m. a.m., the last contact with the real shadow at 5h. 31m. a.m., and the last contact with the penumbra, or lesser shadow, at 7h. 12m. a.m. The two latter phenomena will not be visible at London, as the Moon sets at 5h. 12m. a.m. This eclipse will be best seen at 69 deg. of west longitude and 9 deg. of south latitude, where the Moon is at the zenith at the time of



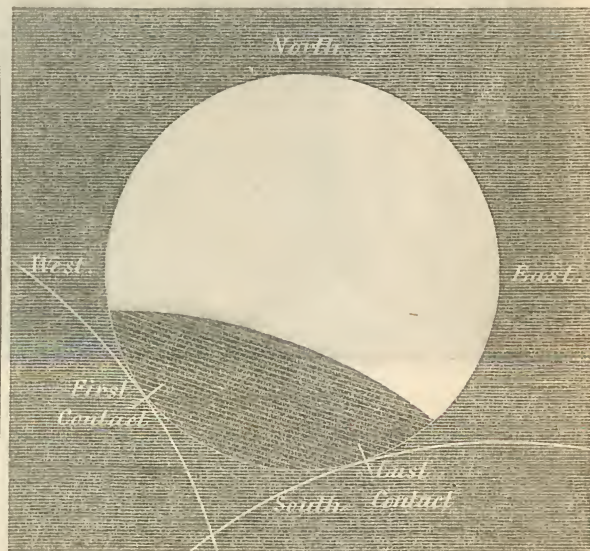
ECLIPSE OF MOON, APRIL 11, 1865.

middle of the eclipse. The points of the Moon's circumference at which the shadow first touches and passes off are given in the Diagram.

A more favourable eclipse will be visible on Oct. 4, when one third of the Moon's disc will be hidden at 10h. 40m. p.m. The first contact with the penumbra, or half shadow, occurs at 8h. 26m. p.m.; the first contact with the real shadow at 9h. 39m. p.m.; the greatest obscurity at 10h. 40m. p.m.; the last contact with the real shadow at 11h. 41m. p.m., and the last contact with the fainter shadow at 54m. after midnight. The points of first and last contacts and the magnitude of the eclipse will be seen from the diagram, the point marked north being that which is directed towards the north pole of the heavens, and not merely the uppermost portion of the Moon's disc.

NEW COMETS AND PLANET IN 1863-4.

SINCE the publication of the ILLUSTRATED LONDON ALMANACK for 1864 three new comets have been added to the list of those erratic bodies. The first was detected at Marseilles on Nov. 5, 1863, by M. Temple, and was visible to the naked eye, showing a tail of a couple of degrees in length. The head was in appearance like a condensed nebula. The second comet, and most remarkable, was detected by Professor Respighi, at Bologna, on Dec. 28, 1863; and from the remarkable similarity of its path round the sun with the comets



ECLIPSE OF MOON, OCT. 4, 1865.

of 1490 and 1810 it was at first supposed to be identical with those bodies. Of course, if its suspected period of fifty-three years had been correct, it should have appeared on or about the years 1543, 1596, 1649, 1703, and 1757; but its presence on those occasions has not been recorded; but, being always a faint object, this was not considered of much consequence. In 1490 it is described as having a very long and white tail, but was only visible for a few days. In Poland it was seen to the middle of February. On the feast of the Epiphany it is stated to have been in the constellation of Pisces, its head

being described as small but its tail long and faint; and on Jan. 17, when observed at Nuremberg, it was in the constellation of Aries. It is described as following the Sun after setting with its tail turned towards the east. On Jan. 13, 1491, a comet was observed in the constellation of Cygnus, by the Chinese, but it seems to have been quite different from the above. The indefatigable Pons, who discovered twenty-nine comets, detected one on Aug. 22, 1810, which, on its path being calculated, was found to bear a strong resemblance to that of 1490, although its appearance was considerably different. It is described as round, with a faint nebulousity. Although visible until Oct. 8, it could not be observed after Sept. 21 with the small telescopes then in use. The positions of the comet were, consequently, uncertain at both times. Bessel and others, however, strongly suspected the identity of the two bodies, their path round the sun, their shortest distance from it, the direction of their motion, their inclination to the ecliptic, and the points at which they cut the plane of the latter being almost alike. In all those respects the comet of Dec. 28, 1863, agreed almost exactly. From observations made on Jan. 7, 23, and Feb. 8, Dr. Miché, however, found that its period of revolution about the Sun appeared more like 108 years; and, until this difference can be accounted for by taking all the observations made into account, the identity of the three comets must remain doubtful. The comet discovered in July, 1864, was the brightest of the three, and in August was visible to the naked eye near the Pleiades.

A planet (Sappho) was discovered on May 2, 1864, by Mr. Pogson, at Madras, and makes the eightieth of the group of Asteroids.

TINTED ILLUSTRATIONS.

MAP OF THE MOON.

THE map of the Moon given in the Coloured Illustration is reduced from the great German chart of Beer and Maedler, which required so many years to complete. It represents the general aspect of our satellite when full, with its various divisions of dark and bright spots, the former of which go by the name of seas, although to all appearance, when telescopically examined, as free from water as the latter. As no atmosphere exists in those barren regions, the absence of clouds, &c., is fully accounted for, its surface always presenting the same bright and rocky scenery, unless when influenced by the mists, &c., of our own atmosphere. Nothing can exceed the grandeur of the aspect of its mountains when seen through a powerful telescope, particularly at the times of the first and last quarters, and when the various eminences are emerging into the sunlight along its broken edge. Those mountains take every variety of form, stretching out in immense chains, rising in solitary peaks, or more generally taking those curious forms which are denominated *ring-mountains*. Those latter are of every imaginable size and degree of completeness, some being quite perfect in regard to the surrounding wall and their circular form, whilst in others this is broken and very irregular in figure. Some, it will be noticed, are circular walled plains, the interior being quite flat, and those belong to the largest members of this class, their diameters sometimes reaching to 150 miles. Others, and those the most perfect shapes of the annular mountains, are concave in the interior, with a solitary peak rising in the centre. The height of the mountains or the surrounding walls is various, one being 25,000 ft. high, whilst there are twenty-two which exceed 16,000 ft., or the height of Mont Blanc. The mountain Tycho, which is easily recognised at the time of Full Moon from its brightness and the white streams which radiate from it in all directions (upwards of one hundred in number), and one of which passes to a distance of five hundred miles from the central mountain, is upwards of 20,000 ft. in height. It has been found that those bright streaks do not rise above the surface of the Moon, although they pass over mountain and valley without being interrupted in their course. They are most favourably seen on a small scale in the mountain Aristarchus, which is the most brilliant portion of the Moon, and which may even be seen in the dark part of the New Moon when a day or two old (at those times when the whole of the disc is visible), and has sometimes been mistaken for a lunar volcano actually burning. The darkest part of the lunar disc occurs in two mountains at its eastern margin.

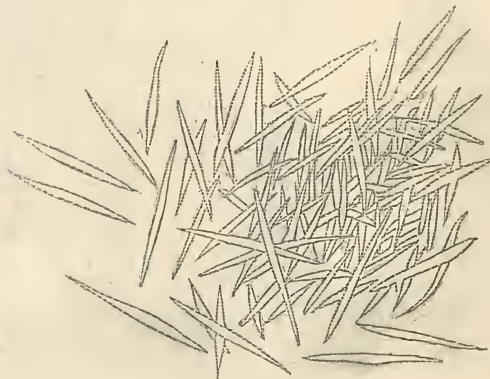
It is generally agreed that all the various forms of caves, elevations, annular mountains, and radiating bright streaks, are due to volcanic causes, although there is some diversity of opinion as to how those operated. The ring-mountains may be conceived to have been formed by the ejection of lava in a regular manner from the central peak, which would thus form a circular wall round it, the peak itself being the last expiring energy of the volcanic force. In the circular walled plains it is supposed that the lava flowed out in great quantities after the formation of the outer wall, covering the inner floor evenly.

Although in a map of the Moon it is necessary, as is here done, to represent it when full, yet it will always be found (except when in order to see the bright streaks) that its various features are most favourably viewed when it is at its first and last quarters.

"WILLOW-LEAVED" APPEARANCE OF SUN'S SURFACE.

DURING the year 1864 the question of the telescopic aspect of the Sun's surface has created much attention. Mr. Nasmyth describes its disc as being covered by a willow-leaved crystalline precipitate of detached particles, which is confirmed by Mr. De La Rue and other celebrated observers, whilst the appearance seen by Mr. Dawes is stated to be that of a flocculent precipitate, which was detected and described by him some years since. In the coloured Engraving a representation of Mr. Nasmyth's discovery of the "willow leaf-shaped filaments" is given, with which he finds the entire luminous surface of the Sun to be covered. "There appears," he states, "no definite or symmetrical arrangement in the manner in which they are scattered over the surface of the Sun; they appear to lie across each other in all possible variety of directions. The thickness of the layer does not appear to be very deep, as I can see down through the interstices which are left here and there between them, and through which the dark or penumbral stratum is rendered visible. It is the occurrence of the infinite number of those interstices, and the consequent visibility of a corresponding portion of the dark or penumbral stratum, that gives to the general solar surface that peculiar and well-known mottled appearance which has for a long time been familiar to the observers of the Sun." When a large dark spot is closing or disappearing it has almost constantly been observed that bridges or tongues of the luminous matter of the sun's disc are thrown over the chasm. Mr. Nasmyth says that if these are examined under favourable conditions it will be found that they are likewise composed of those "luminous filaments or willow-leaf shaped objects," as represented in

the coloured Engraving. The average length, as observed by Mr. Nasmyth, is stated to be about 1000 miles, their width about 100. In the accompanying Engraving a magnified illustration of their form is given. Mr. Dawes fully agrees in this description in so far that the luminous surface of the Sun is made up of "luminous masses imperfectly separated from each other by rows of minute dark dots," which "gives the impression of a division between the luminous masses," but when these are examined with high powers, and a large aperture, they are found never to be complete. He finds that those incomplete masses are of every variety of form and shape, the rarest being those described by Mr. Nasmyth as "long, narrow, and pointed," which, however, are seen at the edges of the spots which Mr. Dawes describes as "extremely jagged, like a piece of coarse thatching with straw, the edge of which has been left untrimmed." By other observers they have been compared to grains of rice; but Mr. Dawes states that this is exactly what he found out twelve years ago, and that he deduced from his observations "that those brilliant objects were merely different conditions of the surface of the comparatively large luminous clouds themselves—ridges, waves, hills, knolls, or whatever else they might be called—differing in



WILLOW LEAVES.

form and brilliancy, and probably in elevation." He states, in addition, that he never met with the slightest resemblance to the *interlacing* of the luminous particles as described by Mr. Nasmyth. It will be seen from the foregoing that there is much yet to be discovered in the physical constitution of the Sun; and it is clear that, whether the terms "rice grains," as given by Mr. Stone, or the interlaced "willow leaves" adopted by Mr. Nasmyth, or the intermixed, cloudy, luminous masses of Mr. Dawes, which occasionally take the form of "jagged straw" they must play an important part in the economy of the great central body. Probably, after all, the same appearances have been seen by all three observers; but that their descriptive powers have suggested different illustrations, and that they have adhered to their original ideas, as thinking them most appropriate. Still, however, the "interlacing," the variety of forms seen by one, and their identity as seen by others, are matters worthy of great consideration.

BRANCHING NEBULA.

AMONG the many discoveries of the Earl of Rosse with his great six-foot speculum none can compare with those numerous additions made to the class of spiral nebulae, which may be said to have been altogether due to his labours. Among those may be reckoned that of Herschel 131, with its numerous branches and extraordinary form. A former drawing, published in the *Philosophical Transactions*, has been considerably corrected within the last few years, of which our Coloured Engraving is a copy. The branches are full of knobs, and a few stars are scattered about the nebula.

EARTHQUAKES IN 1863 AND 1864.

THREE well-authenticated cases of earthquake have taken place in England since the publication of last year's ILLUSTRATED LONDON ALMANACK—the first on Oct. 6, 1863; the second on April 23, 1864; and the last on Aug. 21, 1864. Another has been recorded, in Scotland, in the summer of 1861. Those of April 23 and Aug. 21 seem to have been confined to the southern counties and to have been merely local in their character. They have, however, been well certified for by competent and numerous witnesses. The extent and direction of that on Oct. 6—the most remarkable of late years—has been traced pretty accurately. It does not appear to have been noticed in the eastern counties or in the extreme north of England, and not at all in Scotland or Ireland. The most easterly point seems to have been at Bedford, where it was felt slightly. Its effects seem to have been most violent at Hereford and Cheltenham. The most curious part of its history is the small and almost imperceptible influence it had in London, although in its immediate neighbourhood, as at Twickenham, according to Mr. Hind, it was visibly felt; whilst in the metropolis, out of 700 police on duty only two took notice of anything extraordinary. At Greenwich, Mr. Ellis, the observer on duty, noticed a remarkable disturbance in the adjustment of the instrument he was using; but it does not appear to have affected the rate of going of any of the clocks in the different observatories, although this might appear to be a very delicate test as to the time and comparative violence of the shock or shocks, for it is evident that two occurred, the lesser one being about an hour previous to that at 3h. 20m. a.m. From a letter dated from Windsor it seems, however, that two clocks were found to have stopped there. Several anomalies will be noticed as to the direction of the shock and other circumstances. The highest ground did not always suffer most, as was found at Windsor, &c., where the shock was felt in the town and not at the castle. On former occasions it has been noticed that shocks have been felt in different parts of Europe within a few days of each other, and on Oct. 6 no exception to this rule took place; as at Rouen and the north coast of Africa slight shocks were felt a day or two preceding that of Oct. 6, and at Canada and the West Indies on the latter day.

DECEMBER.



CHRISTMAS.

D. OF M.	D. OF W.	ANNIVERSARIES, FESTIVALS, OCCURRENCES, ETC.	SUN.			MOON.		DURATION OF MOONLIGHT.								HIGH WATER AT				Day of Year.				
			Rises.	Souths before Noon		Sets.	Rises. Aftern.	Sets. Morn.	Before Sunrise.				Moon's Age.	After Sunset.				London Bridge.			Liverpool Dock.			
				H. M.	M. S.				H. M.	H. M.	H. M.	O'Clock.		4	5	6	7	8	O'Clock.		4	5	6	7	8	Morn.	Aftern.	Morn.	Aftern.
1	F	Day breaks 5h. 42m.	7 46	10 40	3 52	3 25	5 38				13													
2	S	Napoleon III. elected Emperor, 1852	7 47	10 17	3 52	4 13	6 53				14													
3	S	1ST SUNDAY IN ADVENT	7 49	9 54	3 51	5 8	8 2				15													
4	M	Twilight ends 5h. 55m.	7 50	9 29	3 51	6 10	9 0				16													
5	Tu	Mozart died, 1792	7 51	9 5	3 50	7 17	9 50				17													
6	W	St. Nicholas	7 52	8 39	3 50	8 27	10 30				18													
7	Th	Ney executed, 1815	7 54	8 13	3 50	9 35	11 2				19													
8	F	Conception B. V. M.	7 55	7 47	3 49	10 42	11 30				20													
9	S	Grouse-shooting ends	7 56	7 20	3 49	11 47	11 53				21													
10	S	2ND SUNDAY IN ADVENT	7 57	6 53	3 49		Aftern.				22													
11	M	Length of day, 7h. 51m.	7 58	6 25	3 49	0 50	0 41				23													
12	Tu	Cibber died, 1757	7 59	5 57	3 49	1 53	1 3				24													
13	W	St. Lucy	8 0	5 29	3 49	2 55	1 27				25													
14	Th	Prince Consort died, 1861	8 1	5 03	3 49	3 58	1 54				26													
15	F	Mean Temperature, 39 deg.	8 2	4 31	3 49	4 58	2 27				27													
16	S	Cambridge Michaelmas Term ends	8 3	4 13	3 49	5 58	3 4				28													
17	S	3RD SUNDAY IN ADVENT	8 3	3 32	3 49	6 55	3 48				29													
18	M	Oxford Michaelmas Term ends	8 4	3 23	3 50	7 47	4 39				30													
19	Tu	Day breaks 5h. 58m.	8 5	2 32	3 50	8 34	5 37				1													
20	W	Napoleon III. elected President, 1848	8 6	2 23	3 50	9 15	6 40				2													
21	Th	St. Thomas	8 6	1 32	3 51	9 50	7 48				3													
22	F	Twilight ends 5h. 58m.	8 7	1 23	3 51	10 21	9 2				4													
23	S	Prince Consort buried, 1861	8 7	0 32	3 52	10 50	10 14				5													
24	S	4TH SUNDAY IN ADVENT	8 7	0 23	3 53	11 17	11 28				6													
25	M	CHRISTMAS DAY	8 8	Aftern.	3 53	11 45	Morn.				7													
26	Tu	St. Stephen	8 8	0 58	3 54	Aftern.	0 43				8													
27	W	St. John	8 8	1 28	3 55	0 44	2 0				9													
28	Th	Innocents	8 8	1 57	3 56	1 20	3 16				10													
29	F	Thomas à Becket assassinated, 1170	8 8	2 26	3 57	2 2	4 30				11													
30	S	Day breaks 6h. 2m.	8 9	2 55	3 57	2 52	5 41				12													
31	S	Silvester	8 9	3 24	3 58	3 49	6 44				13													



THE LATE MR. HUNT, WATER-COLOUR PAINTER.—FROM "THE ILLUSTRATED LONDON NEWS."

WILLIAM HENRY HUNT, the eminent water-colour painter, died on the 10th of February, 1864, at the goodly age of seventy-four, when the (Old) Society of Painters in Water Colours, and, let us add, the whole English school of painting, lost in his death an artist of great originality, and some of whose powers were, we firmly believe, unparalleled. It is a bold thing to claim unique excellence for any artist of our own day; yet we hazard the assertion that, within certain limits of comparison and in respect to a few special qualities, William Hunt is the *facile princeps* of all known painters of still-life. Now, in the still-life drawing of William Hunt there is, in the first place, the same complete command of the material resources of art, and we think we shall offend no one by saying that the deceased has left none behind him so completely master of the materials of water-colour painting. In whatever other qualities he may have transcended him, even Turner has not exemplified the power of colour and force of relief we find in some works by William Hunt. In the next place, Hunt has the negative merit of being—almost, by-the-way, for the first time in the history of still-life art—entirely free from that definite, limited, and assignable finality of the copyist. But

the quality which places Hunt's still-life supreme and apart is the (in a sense) positive one of being mysteriously and illimitably suggestive. Every touch is so. All that is artistically beautiful in the object he imitates is, as it were, reduced to its essential component grain, and each grain readjusted on the paper without confusion or loss of identity. It is the very alchemy of art, exemplifying in one and the same instance the opposite processes of analysis and synthesis. He, for the first time in still-life painting, unites perfect finish with perfect freedom, and optical illusion, which is a necessary property of comprehensive imitation, with that feeling in selection which is the higher characteristic of artistic representation. We see, in short, the poetic suggestions wedded to the prose facts of arts, and set to each other "like perfect music unto noble words." In looking at a Dutch flower-piece one instantly thinks of the painter's patient laboriousness, and often ends by commiserating him for his toilsome drudgery; but we no more dream of effort or labour in a drawing of fruit or flowers by Hunt than we do in gazing at the flowers of the field themselves, which "toll not, neither do they spin."

FERNS AND BUTTERFLIES.

NOVEMBER AND DECEMBER.

NOVEMBER is the pioneer of winter. He comes with his sharp winds to cut down every blade and leafy bit of green to make room for the coming snow-flakes and form a great bed for Winter to sleep upon. All Nature seems to begin her rest; the hedges and fields that were so lately covered with bright flowers now have a sombre and quiet hue. The summer birds have all gone, and the little animals that make themselves so merry in the woods during the warm days that are past now coil themselves up in their winter nests and take a long, sound sleep, until the rays of the sun shall again awaken them to active life. The shortest day and the longest night soon come upon us, and we find in our homes the real comfort of an English fireside, not forgetting those who, less favoured than ourselves, have to suffer much that we escape from the inclemency of the weather. Who has not sat and gazed into the fire and seen all sorts of fantastic shapes, fairy grottoes or fiery caves, according to the mood of the gazer? One might almost fancy that the coals had reproduced in their structure miniature pictures of the old world forests when they began their existence, and thus our minds are led to think of the trees and plants, ay, and the ferns, too, which contributed in bygone ages to form an inexhaustible store of carbon, in preparation for the comfort and welfare of man, before he appeared on the earth. Coal owes its origin entirely to the decomposition of woody tissue produced under great pressure. On examining sections of coal under the microscope distinct vegetable tissues can be discovered, and certain appearances point to the proportion of ferns being large in this formation. Ferns are the only carboniferous fossil group which present an obvious and recognisable relationship to an order of the present day. While cellular plants and those with lax tissues lose their characters by fossilisation, ferns are more durable, and retain their structure. It is rare, however, to find the stalk of the frond completely preserved down to its base. It is also rare to find the fructification present. We may, however, occasionally trace the form of a fern upon a piece of coal destined for our fireplaces; and in coal-mines large slabs are often secured bearing the distinct impress of portions of the gigantic ferns which abounded in the periods when these beds were formed. The ferns of that age seem to have greatly resembled the tree ferns of the present day, and, like them, rarely to exhibit fructification. This fact increases the difficulty of determining the species or genera of fossil ferns. Circinate venation, so common in modern ferns, is seldom seen in fossil species, and we do not often meet with rhizomes. There is great similarity between the coal ferns of Britain and America. In the English coal measures there have been 140 species made out. The preponderance of ferns once flowering plants is seen at the present day in many tropical islands, such as St. Helena and the Society group, as well as in the extra tropical islands, as New Zealand. In the latter Hooker picked thirty-six kinds in an area of a few acres; they gave a luxuriant aspect to the vegetation, which presented scarcely twelve flowering plants and trees besides. The presence of this kind of vegetation in the coal-beds favours the idea that at that period there existed a mild, equable, and humid climate, such as there is on islands in the midst of a vast ocean. There are certain ferns found in the coal-beds which greatly resemble many of our recent ferns. Geologists tell us of *Pecopteris*, which is the representative of *Pteris*, and *Neuropteris*, which much resembles our *Osmunda regalis*. A very perfect specimen was found in a coal-field near Edinburgh by the late Hugh Miller, and described by him. There is a good collection of these fossils to be seen in the British Museum. Sir Charles Lyell tells us that it is his conviction that the plants which produced coal were not drifted from a distance, but nearly all of them grew on the spot where they became fossil. "They constituted the vegetation of low regions, chiefly the deltas of large rivers, slightly elevated above the level of the sea, and liable to be submerged beneath the waters of an estuary or sea by the subsidence of the ground to the amount of a few feet." The coal-fields in Great Britain alone have been estimated at 4251 square miles in extent. The beds are often thousands of feet thick, and imply that, for an indefinite number of ages, a great body of water flowed continuously in one direction, submerging the forests of that period. Forms of vegetation doubtless existed at that time of which we have no traces left, as it is only those possessing indestructible tissues that we have preserved their individuality. We are led, by the careful observation of such as remain to us, to believe that the vegetation of the globe has undergone various changes at different periods of its history; and there can be no doubt that there have been successive deposits of stratified rocks and successive modifications of living beings. The thoughts induced, however, by the observation of the coal fossils lead us far back before the existence of man on the earth; for, with the remains of vegetable life that occur in these fossils, we find no indication of man's presence on the earth. We must rather regard these vegetable formations as preparatory for man's creation. Without plants man could not exist. Not only do they constitute his food—for all animals derive their food from the vegetable kingdom—but they generate an atmosphere in which men alone can live. Plants give out oxygen in their growth and take up carbonic acid—man breathes in oxygen and gives out carbonic acid; so that it appears to us as though the Creator had, by the agency of plant life, made ready a suitable atmosphere for man before the special act of creation which placed him in the world, the possessor and master of all that had been prepared for him.

Climate has an immense influence on the development of plants, and, as we all know, there are many that will not live, except under certain conditions, and it is only by the artificial imitation of these natural conditions that we can ever induce them to grow in our northern climate. The art of the gardener teaches him that by the judicious use of heat, light, and moisture he may cultivate many of the most delicate exotic plants under glass-houses with almost as much luxuriance as in their native regions. In the spacious houses at Kew, and the smaller but well-kept conservatories of the Botanical Gardens in Regent's Park, and other places, may be seen in great perfection the stately palms and tree ferns of warmer climates, as well as the smaller and more delicate species which may be reared and cultivated in our hothouses and greenhouses. The ferns given in our Plate are two of the most easily cultivated of the exotic ferns, and require only a very moderate degree of heat to preserve them in good condition in this country. *Cyrtium caryotideum* is a species that is brought chiefly from the mountain regions of India, where it has been met with at an elevation of above 8000 feet. It has pinnate fronds of one to two feet high, the pinnae large, light, but dull opaque green in colour, rather few in number, ovate foliate, much acuminate, and usually auricled, the terminal one auricled on both sides, and of the singularly irregular shape found in the leaflets of the *Caryota palm* (*Caryota urens*). Its name has reference to its resemblance to the foliage of that tree. It has been found in the Sandwich Islands and in South Africa; also in Natal and the forests of Kaffraria. Our other

specimens of greenhouse ferns is the *Pteris cretica albo lineata*, a Java species, but very accommodating, thriving well in cool hothouses in this country, and being almost hardy. It belongs to the same family as our common *Brakes* *Pteris aquilina*. It has short and broad outside sterile fronds, and tall, narrow, and more erect central fertile ones, about 1 ft. high, pinnate, with but few pinnae, and having the basal one parted on the hinder side, all of them with a broad white band down their centre. Vast numbers of tropical plants are brought to our shores and cultivated with more or less success in the different private and public gardens, which abound in this and other countries. Great difficulty has been experienced in the transit of tropical plants to other regions, numbers dying on the voyage; but the invention of Mr. Ward's closed cases, which we have before mentioned as admirable for the growth and preservation of ferns, have removed these difficulties, and the most delicate exotic plants may now be carried across the ocean with perfect security.

A much larger number of ferns grow in tropical countries than in our own, consequently the skillful gardener who is fortunate enough to bring them directly from their native forests to his own hothouse must bear in mind that heat, moisture, and shade seem to be the circumstances under which they flourish, and the largest number of ferns is therefore to be found where these things exist. It is remarkable that ferns are very numerous on islands in proportion to the corresponding continents. On Falkland Islands the proportion of them, including the *Lyceopodia*, is one to fifteen; in New Zealand one to six. Ferns have their peculiar uses in the vegetable kingdom. In common with other cellular plants, they provide mould in situations where plants of a higher order could not at first grow; and this is effected in a twofold manner—by the decay of their fronds and the action of their roots. Mr. Webster, in his "Voyage of the Chanticleer," states that when gathering ferns in the Island of St. Catherine, he was particularly struck by observing that each plant had formed for itself a bed of fine mould several inches in depth and extent, whilst beyond the circle of its own immediate growth was naked rock; and this appeared so general that he could not help attributing the extraordinary circumstance to the disintegrating power of these fibrous roots which penetrated every crevice of the rock, and by expanding in growth, appeared to split it into the smallest fragments. Ferns, likewise, are of the greatest service to man, affording him in various countries supplies of food in time of need and giving protection to numberless animals upon which man subsists. In tropical countries arborescent ferns are the most glorious objects in the vegetable kingdom; and in temperate climes they throw a phoenix-like beauty over the dead and decaying works of nature and art which has a peculiar charm of its own, and reminds the observer that no adornment can be compared with that produced by the natural growth of plants. It is not in the power of all lovers of plants to have conservatories and glass-houses of their own, but the poorest person may, by the aid of a common bell-glass used as a forcing-glass, and made of the coarsest material, nourish and preserve delicate little plants in the closest cottage window. We have lately seen the prettiest and most permanent table ornaments, formed by growing ferns planted carefully in glass dishes with bits of tiny rockwork introduced, and the ferns so arranged as to grow out of these bits of rock, the taller ferns being placed in the middle. To those who possess a conservatory or greenhouse, or even a Ward's case, these table decorations are very convenient and pretty, for they can be replaced in their natural atmosphere after use for a few hours, and retain their freshness and beauty for many months, even in a London house. Possibly there may be some reason for the almost universal custom of gardeners to arrange their plants in hothouses and greenhouses in straight and uniform rows; but we know that such a practice is not a necessary one, and that in beds arranged within the limits of a hothouse so as to inclose pools of water, natural pieces of rock, and winding paths, it is possible to secure the most perfect tropical vegetation, and to form some notion of what it must be to behold the stately palm-tree and luxuriant ferns in their native forests. Any arrangement seems to us better than that which may have, perhaps, the excuse of convenience for removal of long white or green wooden stands with pots of growing plants, ferns or flowers, placed side by side, as if for sale, without any regard to natural position or grouping.

In Mr. Ward's garden at Clapham is exemplified what can be done with a London garden by anyone disposed to consider nature rather than conventional regularity and neatness, and in his glass-houses we have ferns growing naturally out of rockwork, and surrounding little pools of water, on the borders of which flourish bog and other plants, receiving their necessary moisture from the evaporation which takes place, instead of being confined each to its little medium of earth supplied in a red garden-pot, having the free and undisturbed privilege of spreading themselves in any direction. Such a thing as a garden-pot is not seen on the premises, but every plant is considered, and has a place provided for its growth as much like its natural home as possible. This, we believe, is the true way to cultivate and enjoy a garden.

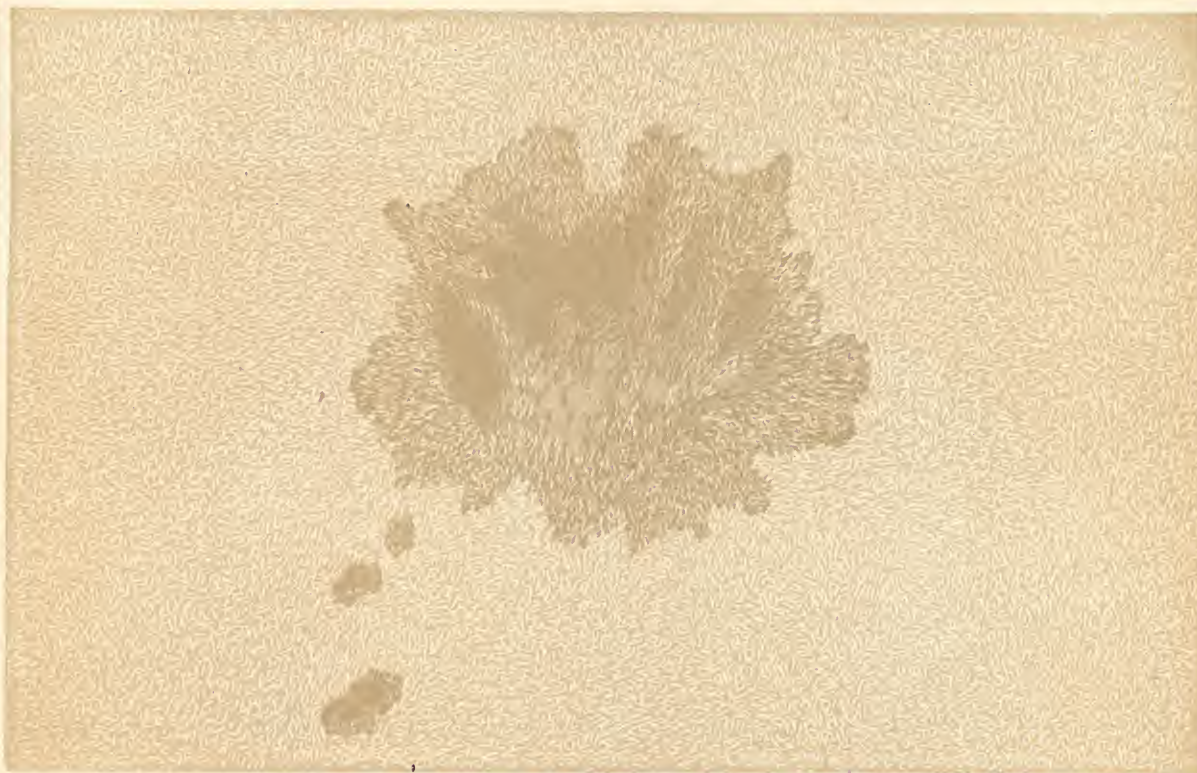
Our Plate reminds us that all insect life has not quite disappeared with the dull days of November and December. The hummingbird hawkmoth (*Macroglossa stollatarius*) is sometimes found as late in the year still hovering over the scene of its summer sports, and occasionally the warmth of our green and hot houses will attract a late tarrier to their genial shelter.

Moths are generally divided into two divisions—crepuscular, or those that are seen on wing at twilight, and nocturnal or nightfliers, the latter comprising by far the greater number. The twilight family consist chiefly of hawkmoths, or sphinxes—the former name having reference to the moth's hovering mode of flight; the latter to the caterpillar's remarkable form and position when at rest. Many of the hawkmoths are named after the trees and plants which furnish the favourite food of their caterpillar life. The name of the hummingbird hawkmoth of our Plate is derived from the vibratory sound emitted by the wings of this pretty insect as it hovers suspended, morning and evening, above flowers of which the honeyed treasures are never inaccessible to its long, spiral proboscis. The anterior wings of this curious moth are dusky brown, striated and barred, the hinder white or rusty yellow; and the body, which is short, is variegated at the sides with small tufts of black and white, finished by a large black bush at its extremity. The hummingbird-moth is frequently seen in most parts of England, but especially near the seaside. The caterpillar is green, variegated with white. It sports a tall somewhat conspicuous as proportioned to its size. It is a feeder on that rough and trailing climber known as cleavers; also on goosegrass and ladies' bed-straw (*galium*).

We have now brought our circle of months to a close, and we trust our readers may find, if so inclined, suggestions for natural history thought and study for each month of the year—not by any means strictly arranged, so as to be applicable only to the months in which they appear, but as hints for further research in the direction of that most interesting group of plants which form the chief feature of our Illustrations.



TERRESTRIAL APPEARANCE OF THE MOON.

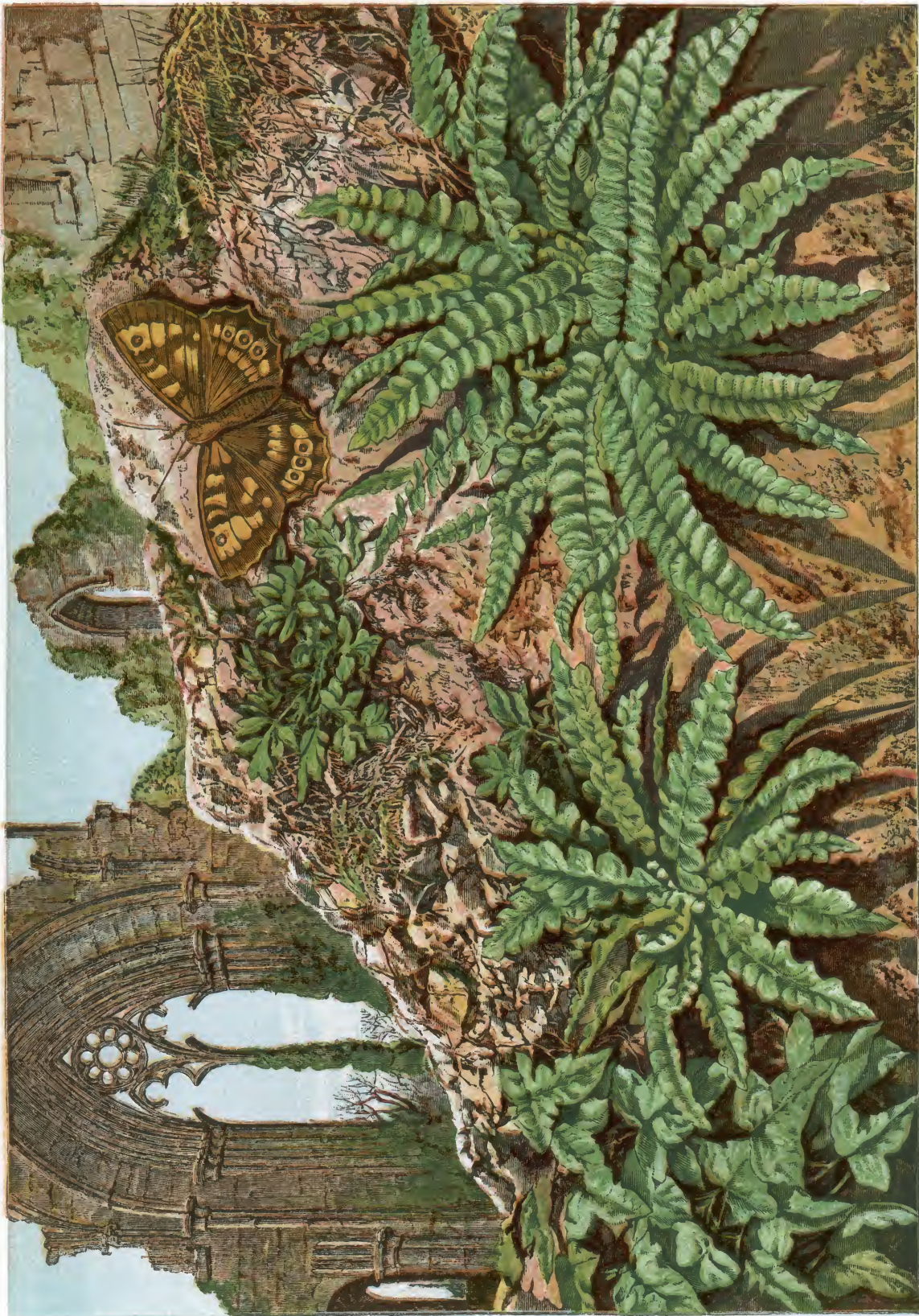


"WILLOW LEAFES" DISCOVERED BY MR. BARNETT ON THE SURFACE AND NEATH OF THE ROOF.



BRANDISH'S DISCOVERY AS SEEN BY SAID DOOR.





W A L L F E R N S.
MARCH AND APRIL



SEASIDE FERNS.
MAY AND JUNE.



COMMON POLYPODY.

JULY AND AUGUST.



COMMON HARD FERN.
SEPTEMBER AND OCTOBER.



VARIEGATED HOTHOUSE FERNS.
NOVEMBER AND DECEMBER.